Service Manual

iPF750 series

Canon

Apr 1 2009

Application

This manual has been issued by Canon Inc. for qualified persons to learn technical theory, installation, maintenance, and repair of products. This manual covers all localities where the products are sold. For this reason, there may be information in this manual that does not apply to your locality.

Corrections

This manual may contain technical inaccuracies or typographical errors due to improvements or changes in products. When changes occur in applicable products or in the contents of this manual, Canon will release technical information as the need arises. In the event of major changes in the contents of this manual over a long or short period, Canon will issue a new edition of this manual.

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Caution

Use of this manual should be strictly supervised to avoid disclosure of confidential information.

Symbols Used

This documentation uses the following symbols to indicate special information:

Symbol	Description
	Indicates an item of a non-specific nature, possibly classified as Note, Caution, or Warning.
	Indicates an item requiring care to avoid electric shocks.
	Indicates an item requiring care to avoid combustion (fire).
	Indicates an item prohibiting disassembly to avoid electric shocks or problems.
	Indicates an item requiring disconnection of the power plug from the electric outlet.
Memo	Indicates an item intended to provide notes assisting the understanding of the topic in question.
REF.	Indicates an item of reference assisting the understanding of the topic in question.
	Provides a description of a service mode.
	Provides a description of the nature of an error indication.

The following rules apply throughout this Service Manual:

1. Each chapter contains sections explaining the purpose of specific functions and the relationship between electrical and mechanical systems with reference to the timing of operation.
   In the diagrams, ▭▮▮▮▭ represents the path of mechanical drive; where a signal name accompanies the symbol , the arrow ⟶ indicates the direction of the electric signal.
   The expression "turn on the power" means flipping on the power switch, closing the front door, and closing the delivery unit door, which results in supplying the machine with power.
2. In the digital circuits, '1'is used to indicate that the voltage level of a given signal is "High", while '0' is used to indicate "Low".(The voltage value, however, differs from circuit to circuit.) In addition, the asterisk (*) as in "DRMD*" indicates that the DRMD signal goes on when '0'.
   In practically all cases, the internal mechanisms of a microprocessor cannot be checked in the field. Therefore, the operations of the microprocessors used in the machines are not discussed: they are explained in terms of from sensors to the input of the DC controller PCB and from the output of the DC controller PCB to the loads.

The descriptions in this Service Manual are subject to change without notice for product improvement or other purposes, and major changes will be communicated in the form of Service Information bulletins.
All service persons are expected to have a good understanding of the contents of this Service Manual and all relevant Service Information bulletins and be able to identify and isolate faults in the machine."

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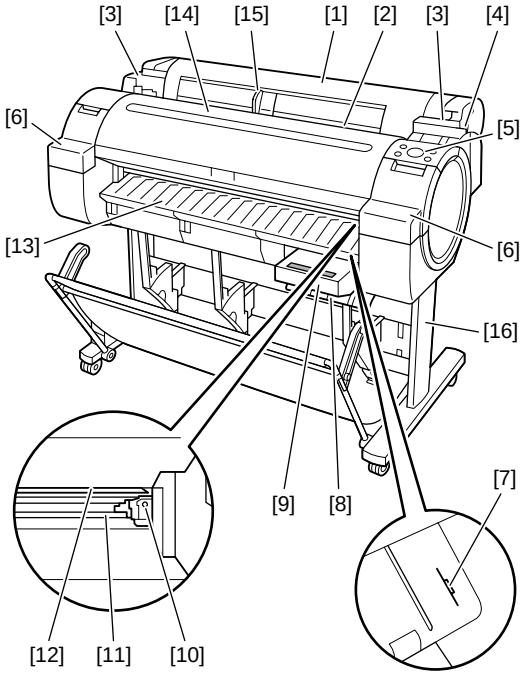
1.1 Product Overview

1.1.1 Product Overview

iPF750 / iPF755

This printer is capable of printing on A4- to A0-size cut sheets and its maximum print width is 36 inches. This printer is a desktop large-format printer five-colors (dye- and pigment-based colors) printer that can be used to print CAD and office documents as well as handy POP and posters.



F-1-1

T-1-1

[1]	Roll media cover	[9]	Maintenance cartridge
[2]	Media loading slot	[10]	Cutter unit
[3]	Roll media temporary table	[11]	Cutter rail
[4]	Release lever	[12]	Paper eject slot
[5]	Operation panel	[13]	Output guide
[6]	Ink tank cover	[14]	Upper cover
[7]	Media alignment line	[15]	Width guide
[8]	Maintenance cartridge cover	[16]	Stand

1.2 Features

1.2.1 Features

iPF755

- High resolutions of 2,400 x 1,200 dpi maximum, coupled with the exceptionally light-fast, water-proof and ozone-proof five-color pigment inks of Y, M, C, PBK and MBK, deliver high-quality photographic picture quality.
- Black ink suitable for the selected media type is automatically selected from two types of black ink, "black ink" for vivid and glossy printing and "matte black ink" for matte and high-quality printing.
- A 160-by-128-dot-large LCD
- One-inch wide printhead having 2,560 nozzles per color, which are as many as the those of the existing models. High-density printhead technology "FINE" that can satisfy both of beautiful and fast printing requirements of a high order is employed for accurate ejection of ultrasmall 4-pl drops of ink to the target positions. Prints with 2,400 x 1,200 dpi resolution can be made at a high speed.
- Imaging processor "L-COA" incorporated for high-speed image data processing. High-speed processing of 5-color, 12-bit large-size images and printer control for high-accuracy operation of high-density head can be performed with a single chip.
- Standard support for 10Base-T/100Base-TX/1000Base-T and USB 2.0 Hi-Speed.
- Borderless printing on and auto cutting of roll media.
- Hard disk drive mounted for greater ease of job management.

Functional enhancements new to this model include:
- All operations such as loading the roll media and cassette paper can be carried out at the front (top) of the printer, enhancing operability.
- The printer can be installed with its back in touch with the wall, requiring no installation space at the back of the printer.
- A subtank mounted at the ink port allows you to replace the ink tank during printing.
- The pressure of suction from the borderless printing ink catch groove changes automatically with the media size, preventing shift of media edges and staining of the backside of the media.
- A printhead having nozzles (I-shaped nozzle) with a new shape reduces ink mist, ensuring superfine printing.
- Compatibility with e-maintenance/imageWARE Remote allows centralized management of customers' printer information.
- The newly designed operation panel allows you to operate the printer intuitively.

1.2.2 Features

iPF750

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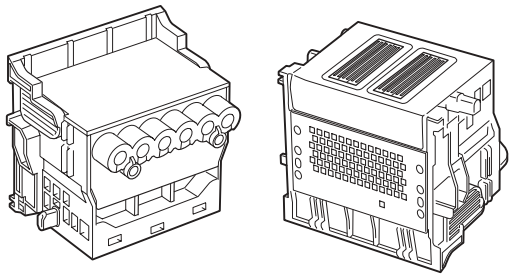
- Compatibility with e-maintenance/imageWARE Remote allows centralized management of customers' printer information.
- The newly designed operation panel allows you to operate the printer intuitively.

1.2.3 Printhead

iPF750 / iPF755

The printhead that mounts on the carriage is an integrated six-color disposable printhead.
It has 5,120 nozzles for MBK and 2,560 nozzles for each additional color arranged in a zigzag pattern.
If print quality remains unimproved even after a specified cleaning operation, replace the printhead. Replacement about one year after the date of initial unpacking is also recommended.



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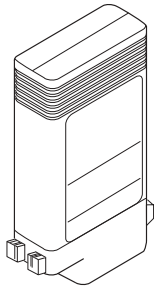
1.2.4 Ink Tank

iPF750 / iPF755

The ink tank is disposable.
There are four dye-based ink colors (black, cyan, magenta, and yellow) and one pigment-based ink color (matte black).
This printer features a mechanism by which only the correct color ink tank will fit in the given slot.
When the message No Ink is displayed, replace the ink tank with a new one. Also, each ink tank should generally be replaced six months after you have opened the package.

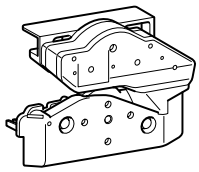


F-1-3

1.2.5 Cutter

iPF750 / iPF755

The cutter attached to the cutter unit is a round cutter.



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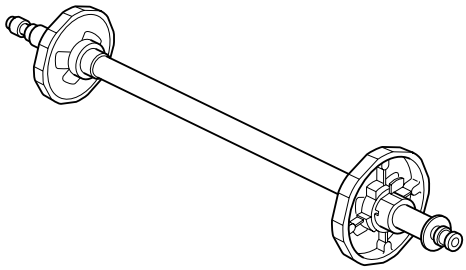
1.2.6 Roll Holder

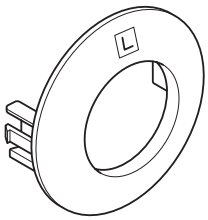
iPF750 / iPF755

The roller holder accepts paper tubes having inside diameters of both 2 and 3 inches. It is furnished with attachments for 2- and 3-inch diameter paper tubes.
The roll holder clamps the paper tube of a roll not exceeding 150 mm in outside diameter from the inside.



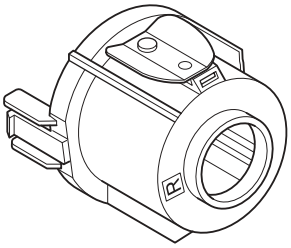
F-1-5

[2-inch paper tube attachment]



F-1-6

[3-inch paper tube attachment R]



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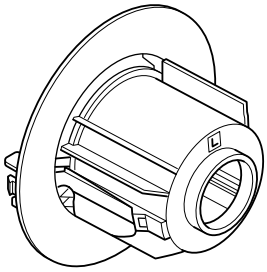
[3-inch paper tube attachment L]

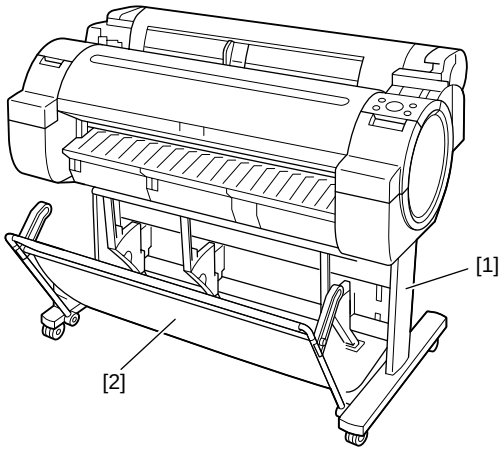


F-1-8

1.2.7 Stand

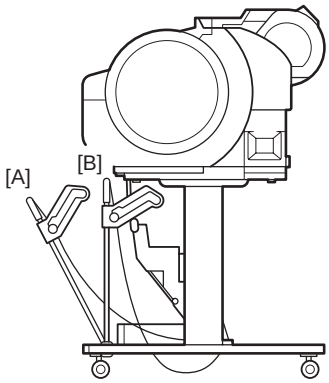
iPF750 / iPF755

It is a stand [1] that puts the printer. Equipped with casters so that the printer can be easily moved. The output stacker [2] included with stand can use by the two ways of the regular position or extended position.



F-1-9

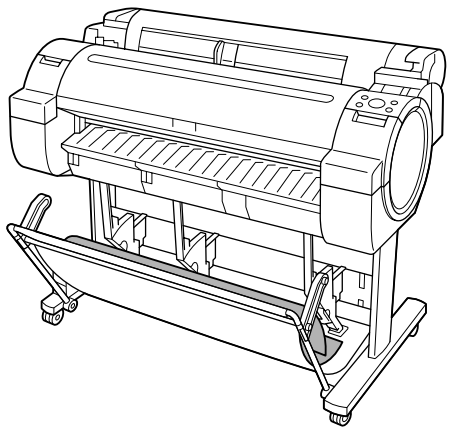
MEMO:
- When delivering the printing to the output stacker: Use the position [A].
- When not using the output stacker or moving the printer: Use the position [B]. When moving the printer, raise the auxiliary rod to the position of extended position.



F-1-10

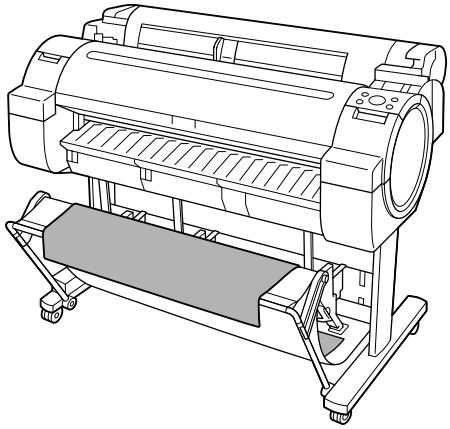
- Use the output stacker in the regular position. However, for the specified media, it can also be used in the extended position. The media can be removed more easily when the output stacker is in the extended position. When moving the printer, changing the auxiliary rod to the position of extended position.
- The output stacker can accommodate one sheet. Remove each sheet before printing if you are printing a series of documents.

[Regular position]



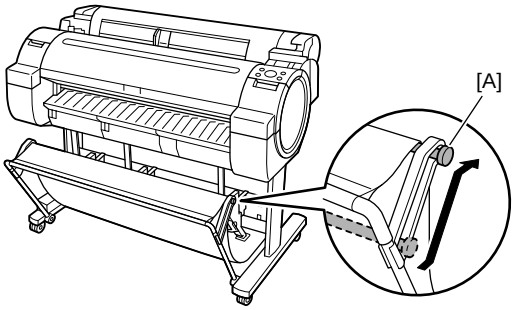
F-1-11

[Extended position]



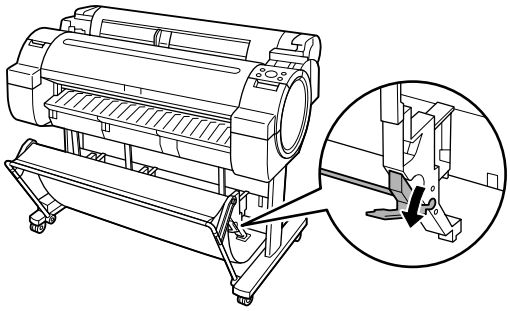
F-1-12

Raise the auxiliary rod to the position [A] of the illustration to change to the extended position.



F-1-13

When using the roll media of more than 24-inch or A1 width, pull out the switching stopper.



F-1-14

1.2.8 Hard disk drive

iPF755

Each print job received from the host computer is saved to the 80GB hard disk drive(serial ATA connection) attached to the printer, so the printer can print the job repeatedly as needed, without having to wait for its retransmission from the host computer.

Saving print jobs will offer the following benefits:
- Eased computer workload
A print job may be automatically preserved to the hard disk when printing or may be preserved to the hard disk without printing. A print job preserved can be printed in as many copies as needed without having to use the host computer.

- Reprinting after error occurrence
If the printer encounters errors, such as paper out, while printing a print job, it can resume the print operation as soon as the errors are cleared, without needing its retransmission from the host computer.

- Higher print work efficiency
Print jobs can be printed selectively or in a specified number of copies without using a host computer. Multiple print jobs can be printed batched. Unattended print operations in the nighttime are also possible.

1.2.9 Consumables

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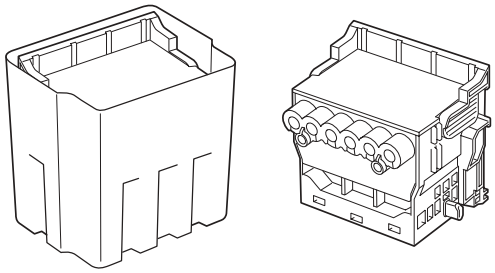
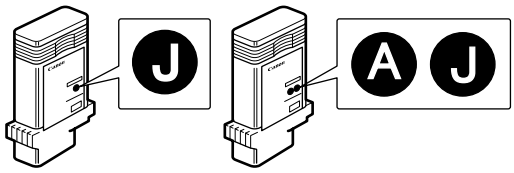
Printhead
The consumable printhead is the same as that supplied with the printer.



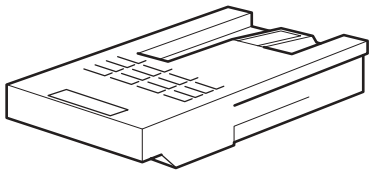
F-1-15

Ink Tanks
The consumable ink tanks are available in five colors (matte black, black, cyan, magenta, and yellow). They are the same as those supplied with the printer. Each ink tank must be replaced with a new one six month after you have opened the package.
The ink tank that can be used with this printer is labeled "J".



F-1-16

Maintenance cartridge
The consumable maintenance cartridge is the same as that supplied with the printer.



F-1-17

1.3 Product Specifications

1.3.1 Product Specifications

iPF755

Type	Bubble jet large-sized paper printer (stand model)
Feeding system	Roll media: manual feed from top Cut sheet: manual feed from top
Feeding capacity	- Roll media: 1 roll madia (Outer diameter of roll: 150 mm or less/Inner diameter of paper tube: 2 or 3 inches) - Cut sheet: 1 sheet
Delivery method	Forward delivery, face up
Sheet delivery capability	1 sheet (using the outout stacker of the stand. However, 20 sheets can be stacked according to the condition (A0/36"X48" size plain paper or recycled paper).
Cutter	Automatic cross-cutter (round blade)
Type of media	Roll Media: Plain Paper, Plain Paper (High Quality), Plain Paper (High Grade), All Plain Paper_Conserve MBK, Coated Paper, Heavyweight Coated Paper, Premium Matte Paper, Premium Glossy Paper 200, Premium Semi-Glossy Paper 200, Premium Glossy Paper 280, Premium Semi-Glossy Paper 280, Back Light Film, Economy Bond Paper, Universal Bond Paper, Matte Coated Paper 170gsm, Premium RC Photo Luster, Durable Backlit Film, High Resolution Coated Paper, Matte Coated Paper 90gsm, Glossy Photographic Paper 190gsm, Glossy Photographic Paper 240gsm, Satin Photographic Paper 240gsm, Glossy Photographic Paper 270gsm, Satin Photographic Paper 270gsm, HW Glossy Photo Paper, HW Satin Photo Paper, Commercial Proofing Paper, Standard Paper1569B 80g, Standard Paper1570B 90g, Matt Coated Paper 9171, Matt Coated Paper 7215, Matt Coated Paper 140g, Opaque Paper White, Hi Res Graphic Paper, Hi Res Barrier Paper, Photo Realistic Paper 210g, Photo paper Pearl 260g, Glossy Proofing Paper 195g, Semiglossy Proofing Paper 195g, Semiglossy Proofing Paper 255g Cut Paper: Plain Paper, Plain Paper (High Quality), Plain Paper (High Grade), Coated Paper, Premiun Matte Paper, Premium Glossy Paper 280, Premium Semi-Glossy Paper 280, High Resolution Paper, Matte Photo Paper, Glossy Photo Paper GP-501, Photo Paper Plus Glossy 2, Photo Paper Pro Platium, Photo Paper Plus Semi-Gloss, Universal Bond Paper, Premium RC Photo Luster, High Resolution Coated Paper, Matt Coated Paper 7215, Matt Coated Paper 140g
Supported thickness	0.07mm to 0.8mm
Media size (Roll media)	Width: 254.0mm (10") to 914.4mm (36") Length: 203.2mm (8") to 18m (709") *1 Outer diameter of roll :150mm or less *1: The maximum amount of length may vary by the using operating system or the applications.
Media size (Cut sheet)	Width: 203.2mm (8") to 917.0mm Length: 279.4mm (11") to 1600mm (63") *1 *1: The maximum amount of length may vary by the using operating system or the applications.
Printable area (Roll media)	Internal area, excluding a 3-mm top, bottom and left and right margins. Borderless printing: 0 mm from the leading edge, trailing edge, and left and right edges. * The printable area may vary with each type of paper media used. Width of media allowing borderless printing: 36"(914.4mm), A0(841.0mm), B1(728.0mm), 24"(609.6mm), A1(594.0mm), B2(515.0mm), 17"(431.8mm), A2(420.0mm), 14"(355.6mm), 300mm, A3(297.0mm), B4(257.0mm), 10"(254mm)
Printable area (Cut sheet)	Internal area, excluding a 3-mm top margin, a 23-mm bottom margin and 3-mm left and right margins. * The printable area may vary with each type of paper media used.
Printing recommendation area (Roll media)	Internal area, excluding a 20-mm top margin, a 5-mm bottom margin and 5-mm left and right margins.
Printing recommendation area (Cut sheet)	Internal area, excluding a 20-mm top margin, a 23-mm bottom margin and 5-mm left and right margins.
Memory	256MB Increase of memory: none
Hard disk drive	80GB (2.5inch, 5,400rpm)
Firmware	Flash ROM (update from USB or Ethernet) - Printer description language GARO (Graphic Arts language with Raster Operation), HP-GL/2, HP-RTL
Interface	USB2.0 Hi-Speed Network (10Base-T/100Base-TX/1000Base-T)

Operation panel	LCD (160 X 128 dots), 13 keys, 5 LEDs - Panel language English - Message language English, German, French, Italian, Spanish, Chinese, Korean, Russianand and Japanese
Printhead/Ink Tank type	Printhead and separate ink tanks
Printhead	PF-04 Structure: Integrated six-color assembly Number of nozzles: 5,120 for MBK, 2,560 for other each color
Ink tank	PFI-102 MBK/BK/C/Y PFI-104 M Capacity: 130 ml per color (Ink tanks supplied with the printer contain 90 ml pf each color.)
Detection functions (Cover system)	Upper cover open/closed detection: Yes Ink tank cover open/closed detection: Yes
Detection functions (Ink passage system)	Ink tank presence/absence detection: Yes Remaining ink level detection (dot count and electrode): Yes Maintenance cartridge presence/absence detection: Yes Used ink tank full detection: Yes Ink supply Valve open/closed detection: Yes Ink passage Valve open/closed detection: Yes
Detection functions (Carriage system)	Printhead presence/absence detection: Yes Carriage position detection: Yes Carriage home position detection: Yes Printhead temperature detection: Yes Printhead height detection: Yes Non-discharging nozzle detection: Yes Non-discharging nozzle backup feature: Yes Ambient temperature/humidity detection: Yes
Detection functions (Paper path system)	Paper presence/absence detection: Yes Paper width detection: Yes Skew detection: Yes Paper leading edge and trailing edge detection: Yes Release lever position detection: Yes Remaining roll media detection: Yes Feed roller rotation detection: Yes Roll holder rotation detection: Yes Cutter positin detection: Yes
Operating noise	Operating: Approx. 50dB (A) or less Standby: Approx. 35dB (A) or less
Operating environment	Temperature: 15 to 30 degrees centigrade Humidity: 10% to 80%RH without dew condensation
Print quality guaranteed environment	Temperature: 15 to 30 degrees centigrade Humidity: 10% to 80%RH
Power supply	100-240 VAC (50/60 Hz)
Power consumption (Maximum)	During printing: Max. 140 W
Power consumption	In power save (sleep) mode: 100-120 VAC : 5W or less 220-240 VAC : 6W or less During standby: 1 W or less
Printer unit dimensions (WxDxH)	1304mm(W) x 870mm(D) x 1062mm(H) (with stand and opening the output stacker)
Weight	Approx. 63.1 kg (with stand and without printhead and ink tank)

1.3.2 Product Specifications

iPF750

Type	Bubble jet large-sized paper printer (stand model)
Feeding system	Roll media: manual feed from top Cut sheet: manual feed from top
Feeding capacity	- Roll media: 1 roll madia (Outer diameter of roll: 150 mm or less/Inner diameter of paper tube: 2 or 3 inches) - Cut sheet: 1 sheet
Delivery method	Forward delivery, face up
Sheet delivery capability	1 sheet (using the outout stacker of the stand. However, 20 sheets can be stacked according to the condition (A0/36"X48" size plain paper or recycled paper).
Cutter	Automatic cross-cutter (round blade)

Type of media	Roll Media: Plain Paper, Plain Paper (High Quality), Plain Paper (High Grade), All Plain Paper_Conserve MBK, Coated Paper, Heavyweight Coated Paper, Premium Matte Paper, Premium Glossy Paper 200, Premium Semi-Glossy Paper 200, Premium Glossy Paper 280, Premium Semi-Glossy Paper 280, Back Light Film, Economy Bond Paper, Universal Bond Paper, Matte Coated Paper 170gsm, Premium RC Photo Luster, Durable Backlit Film, High Resolution Coated Paper, Matte Coated Paper 90gsm, Glossy Photographic Paper 190gsm, Glossy Photographic Paper 240gsm, Satin Photographic Paper 240gsm, Glossy Photographic Paper 270gsm, Satin Photographic Paper 270gsm, HW Glossy Photo Paper, HW Satin Photo Paper, Commercial Proofing Paper, Standard Paper1569B 80g, Standard Paper1570B 90g, Matt Coated Paper 9171, Matt Coated Paper 7215, Matt Coated Paper 140g, Opaque Paper White, Hi Res Graphic Paper, Hi Res Barrier Paper, Photo Realistic Paper 210g, Photo paper Pearl 260g, Glossy Proofing Paper 195g, Semiglossy Proofing Paper 195g, Semiglossy Proofing Paper 255g Cut Paper: Plain Paper, Plain Paper (High Quality), Plain Paper (High Grade), Coated Paper, Premiun Matte Paper, Premium Glossy Paper 280, Premium Semi-Glossy Paper 280, High Resolution Paper, Matte Photo Paper, Glossy Photo Paper GP-501, Photo Paper Plus Glossy 2, Photo Paper Pro Platium, Photo Paper Plus Semi-Gloss, Universal Bond Paper, Premium RC Photo Luster, High Resolution Coated Paper, Matt Coated Paper 7215, Matt Coated Paper 140g
Supported thickness	0.07mm to 0.8mm
Media size (Roll media)	Width: 254.0mm (10") to 914.4mm (36") Length: 203.2mm (8") to 18m (709") *1 Outer diameter of roll :150mm or less *1: The maximum amount of length may vary by the using operating system or the applications.
Media size (Cut sheet)	Width: 203.2mm (8") to 917.0mm Length: 279.4mm (11") to 1600mm (63") *1 *1: The maximum amount of length may vary by the using operating system or the applications.
Printable area (Roll media)	Internal area, excluding a 3-mm top, bottom and left and right margins. Borderless printing: 0 mm from the leading edge, trailing edge, and left and right edges. * The printable area may vary with each type of paper media used. Width of media allowing borderless printing: 36"(914.4mm), A0(841.0mm), B1(728.0mm), 24"(609.6mm), A1(594.0mm), B2(515.0mm), 17"(431.8mm), A2(420.0mm), 14"(355.6mm), 300mm, A3(297.0mm), B4(257.0mm), 10"(254mm)
Printable area (Cut sheet)	Internal area, excluding a 3-mm top margin, a 23-mm bottom margin and 3-mm left and right margins. * The printable area may vary with each type of paper media used.
Printing recommendation area (Roll media)	Internal area, excluding a 20-mm top margin, a 5-mm bottom margin and 5-mm left and right margins.
Printing recommendation area (Cut sheet)	Internal area, excluding a 20-mm top margin, a 23-mm bottom margin and 5-mm left and right margins.
Memory	256MB Increase of memory: none
Firmware	Flash ROM (update from USB or Ethernet) - Printer description language GARO (Graphic Arts language with Raster Operation), HP-GL/2, HP-RTL
Interface	USB2.0 Hi-Speed Network (10Base-T/100Base-TX/1000Base-T)
Operation panel	LCD (160 X 128 dots), 13 keys, 5 LEDs - Panel language English - Message language English, German, French, Italian, Spanish, Chinese, Korean, Russianand and Japanese
Printhead/Ink Tank type	Printhead and separate ink tanks
Printhead	PF-04 Structure: Integrated six-color assembly Number of nozzles: 5,120 for MBK, 2,560 for other each color
Ink tank	PFI-102 MBK/BK/C/Y PFI-104 M Capacity: 130 ml per color (Ink tanks supplied with the printer contain 90 ml pf each color.)
Detection functions (Cover system)	Upper cover open/closed detection: Yes Ink tank cover open/closed detection: Yes
Detection functions (Ink passage system)	Ink tank presence/absence detection: Yes Remaining ink level detection (dot count and electrode): Yes Maintenance cartridge presence/absence detection: Yes Used ink tank full detection: Yes Ink supply Valve open/closed detection: Yes Ink passage Valve open/closed detection: Yes

Detection functions (Carriage system)	Printhead presence/absence detection: Yes Carriage position detection: Yes Carriage home position detection: Yes Printhead temperature detection: Yes Printhead height detection: Yes Non-discharging nozzle detection: Yes Non-discharging nozzle backup feature: Yes Ambient temperature/humidity detection: Yes
Detection functions (Paper path system)	Paper presence/absence detection: Yes Paper width detection: Yes Skew detection: Yes Paper leading edge and trailing edge detection: Yes Release lever position detection: Yes Remaining roll media detection: Yes Feed roller rotation detection: Yes Roll holder rotation detection: Yes Cutter positin detection: Yes
Operating noise	Operating: Approx. 50dB (A) or less Standby: Approx. 35dB (A) or less
Operating environment	Temperature: 15 to 30 degrees centigrade Humidity: 10% to 80%RH without dew condensation
Print quality guaranteed environment	Temperature: 15 to 30 degrees centigrade Humidity: 10% to 80%RH
Power supply	100-240 VAC (50/60 Hz)
Power consumption (Maximum)	During printing: Max. 140 W
Power consumption	In power save (sleep) mode: 100-120 VAC : 5W or less 220-240 VAC : 6W or less During standby: 1 W or less
Printer unit dimensions (WxDxH)	1304mm(W) x 870mm(D) x 1062mm(H) (with stand and opening the output stacker)
Weight	Approx. 62.9 kg (with stand and without printhead and ink tank)

1.4 Detailed Specifications

1.4.1 Interface Specifications

iPF750 / iPF755

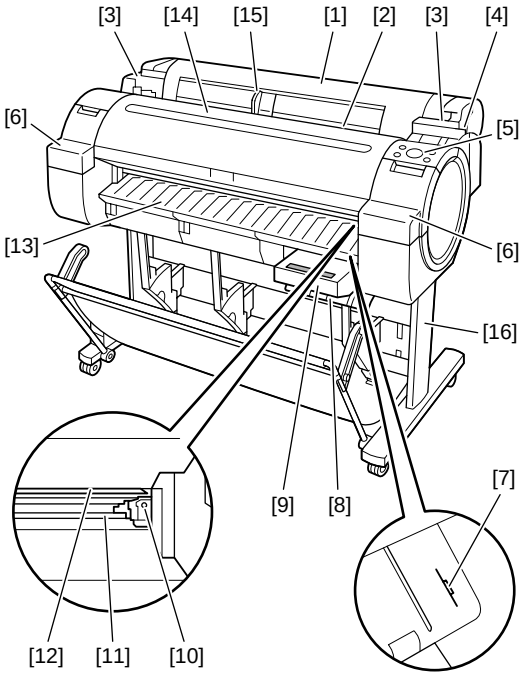
a. USB (standard)
(1) Interface type
Hi-Speed USB (Full speed (12 Mbits/sec), High speed (480 Mbits/sec))
(2) Data transfer system
Control transfer
Bulk transfer
(3) Signal level
Compliant with the USB standard.
(4) Interface cable
Twisted-pair shielded cable, 5.0 m max.
Compliant with the USB standard.
Wire materials: AWG No.28, data wire pair (AWF: American Wire Gauge)
AWG No.20 to No.28, power distribution wire pair
(5) Interface connector
Printer side: Series B receptacle compliant with USB standard
Cable side: Series B plug compliant with USB standard

b. Network (standard)
(1) Interface type
Interface compliant with IEEE802.3
(2) Data transfer system
IEEE802.0 10Base-T, IEEE802.3u 100Base-TX/Auto-Negotiation, IEEE802.3ab 1000Base-T/Auto-Negotiation, IEEE802.3x Full Duplex
(3) Interface cable
Category 5 (UTP or FTP) cable, 100 m or shorter
Compliant with ANSI/EIA/TIA-568A or ANSI/EIA/TIA-568B
(4) Interface connector
Printer side: Compliant with IEEE802.3, ANSI X3.263, ISO/IEC60603-7
(5) Protocol
IPX/SPX (Netware4.2(J), 5.1(J), 6.0(J)), SNMP, TCP/IP, AppleTalk, HTTP

1.5 Names and Functions of Components

1.5.1 Front

iPF750 / iPF755

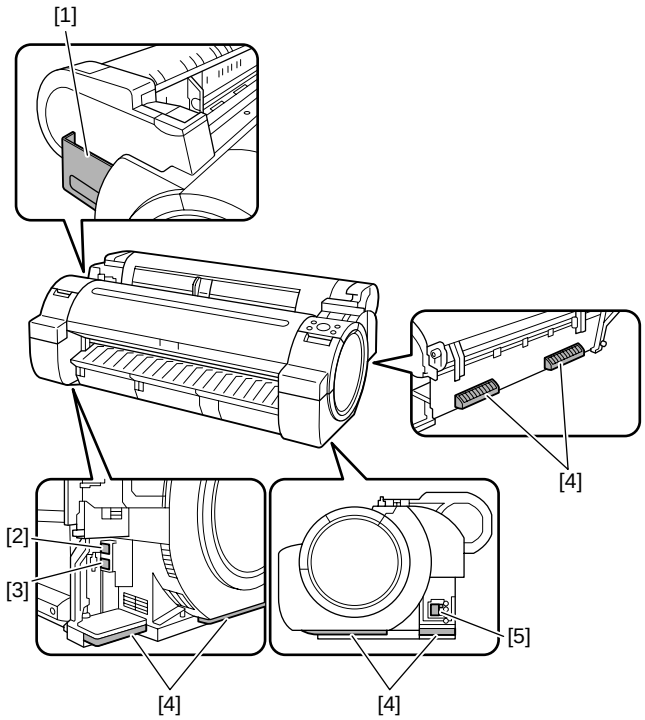


F-1-18

[1] Roll media cover
Open this cover, and then load roll media.
[2] Media loading slot
Insert media in this slot to load it.
[3] Roll media temporary table
When loading roll media, place the roll holder here and then insert the media in the roll holder slot.
[4] Release lever
When releasing the paper retainer, press this lever backward.
[5] Operation panel
Use this panel to operate the printer or check the printer status.
[6] Ink tank cover
Open this cover to replace the ink tank.
[7] Media alignment line
This orange line is used to align media.
[8] Maintenance cartridge cover
Open this cover to replace the maintenance cartridge.
[9] Maintenance cartridge
This cartridge absorbs the ink used for maintenance. (Replace it when it becomes full of ink.)
[10] Cutter unit
This cutter with a round blade is used to cut roll media automatically.
[11] Cutter rail
The cutter unit moves on this rail to cut media.
[12] Paper eject slot
All printouts are ejected from this slot.
[13] Output guide
A printout is ejected along this guide.
[14] Upper cover
Open this cover to install the printhead or remove the media jammed inside the printer.
[15] Width guide
When loading cassette paper, move this guide according to the paper size.
[16] Stand
Install the printer on this stand. This stand has casters for easy relocation.

1.5.2 Side

iPF750 / iPF755

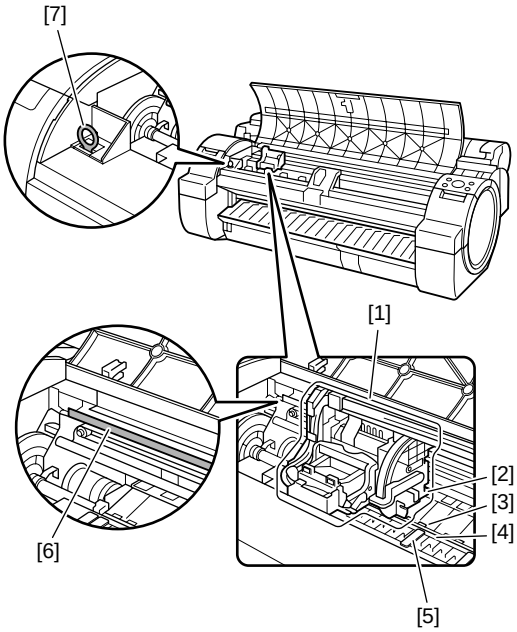


F-1-19

[1] Manual pocket
Store the printer manual in this pocket.
[2] Ethernet connector
Connect the Ethernet cable to this connector. The lamp lights when the Ethernet cable is connected properly and the printer is ready to communicate accordingly.
[3] USB port
Connect the USB cable to this port. This port is compatible with the high-speed USB.
[4] Carrying handles
Three carrying handles provided at the left, right, and back allows three persons to carry the printer.
[5] Power receptacle
Plug the power cord into this receptacle.

1.5.3 Top Cover (Inside)

iPF750 / iPF755

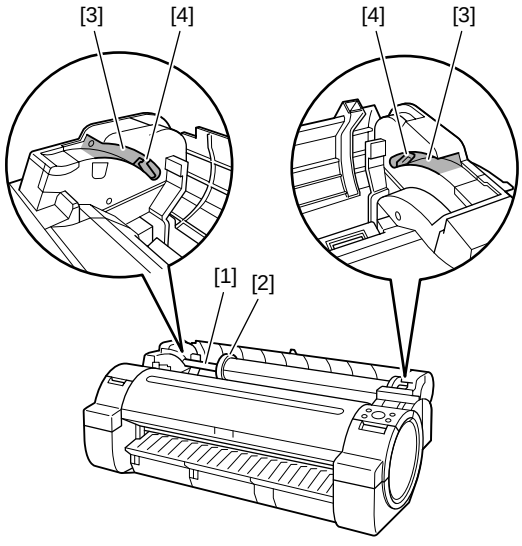


F-1-20

[1] Carriage
The carriage moves the printhead. It is an important component used for printing.
[2] Carriage shaft
The carriage moves on this shaft.
[3] Paper retainer
This is an important component used to feed paper. It retains paper.
[4] Platen
The printhead moves on this component to perform printing. Suction holes are provided on the platen surface to prevent media from floating.
[5] Borderless printing ink catch groove
Ink flowed out of the paper edges enter in this groove during borderless printing.
[6] Linear scale
This is an important component used to detect the carriage position. Never touch it when cleaning the parts or removing jammed media inside the upper cover.
[7] Cleaner brush
Use this brush to remove paper dust off the platen when cleaning the parts inside the upper cover.

1.5.4 Roll Unit Cover (Inside)

iPF750 / iPF755

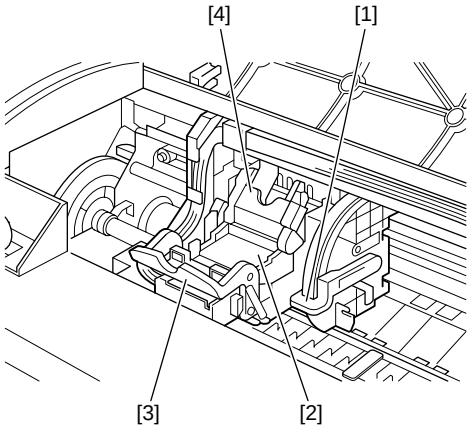


F-1-21

[1] Roll holder
Load roll media in this holder.
[2] Holder stopper
Use this part to secure roll media to the roll holder.
[3] Slide guide
Move the roll holder along this guide.
[4] Roll holder slot
Fit the roll holder in this slot.

1.5.5 Carriage

iPF750 / iPF755



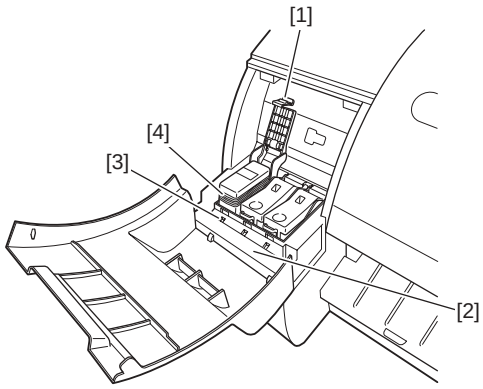
F-1-22

[1] Slant adjusting lever
This lever is used to fine adjust slant of rules lines.
[2] Printhead
The printhead has nozzles. It is an important component used to perform printing.
[3] Printhead fixer lever
This lever is used to lock the printhead fixer cover.
[4] Printhead fixer cover
This cover is used to secure the printhead.

1.5.6 Ink Tank Cover (Inside)

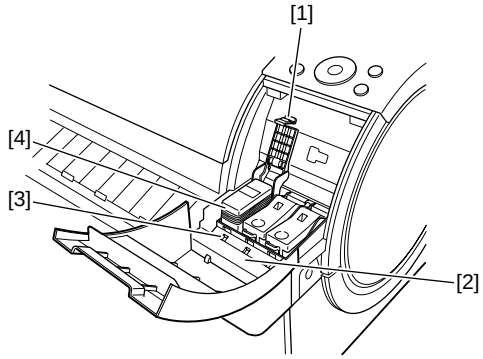
iPF750 / iPF755

[Left Ink Tank Unit]



F-1-23

[Right Ink Tank Unit]

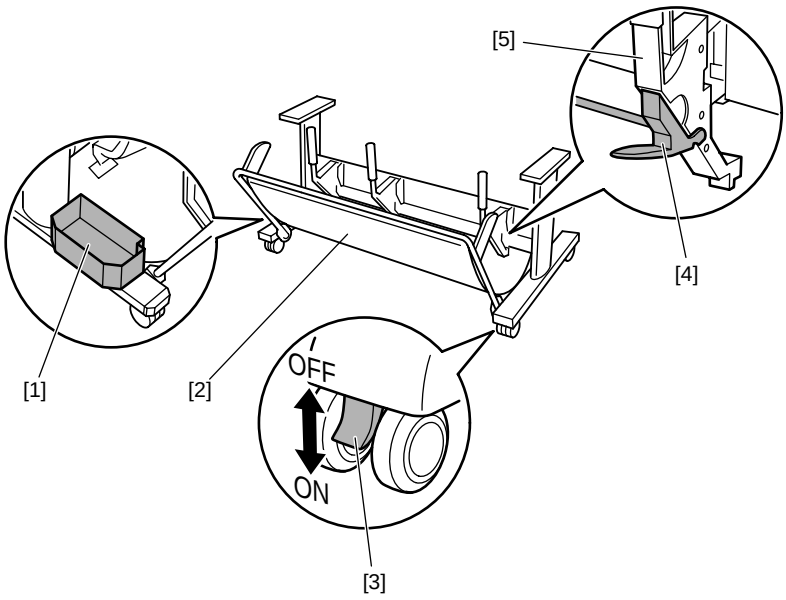


F-1-24

[1] Ink tank lock lever
This lever is used to protect and lock the ink tank. Open/close this lever when replacing the ink tank.
[2] Ink color label
Load each ink tank according to the label color and name.
[3] Ink tank lamp (red)
When the ink tank is opened, the ink tank lamp illuminates as follows:
- Stays lit
The ink tank is loaded properly.
- Not lit
No ink tank is loaded or the remaining ink detection function is disabled.
- Blinking slow
Only a small amount of ink remains in the ink tank.
- Blinking fast
No ink remains in the ink tank.
[4] Ink tank
This is a cartridge containing ink of each color.

1.5.7 Stand

iPF750 / iPF755



F-1-25

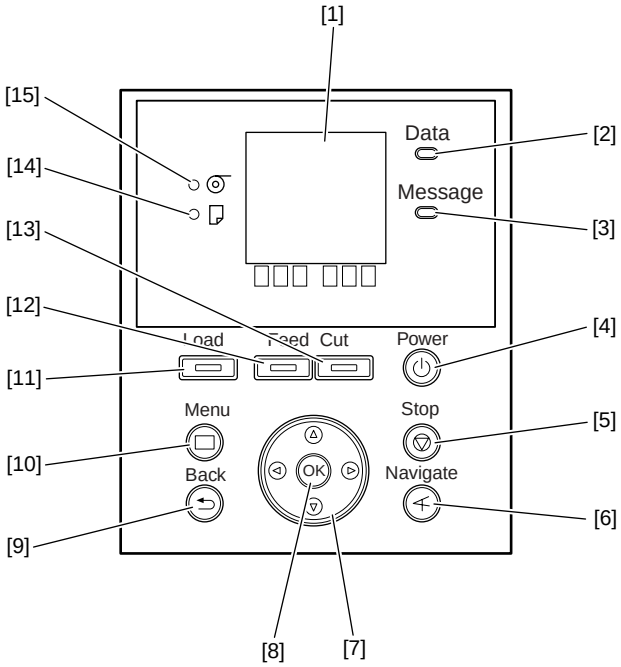
[1] Accessory pocket
Store the printer accessories.
[2] Basket
Ejected printouts are collected in this basket.
[3] Lockable caster
This caster can be locked.
When relocating the printer, be sure to unlock all four casters. Moving the printer with the casters locked can damage the floor.
[4] Switching stopper
Pull out this stopper when using the basket at the extended position.
[5] Paper guide
This guide is used to lead the ejected printout to the basket.

1.6 Basic Operation

1.6.1 Operation Panel

iPF750 / iPF755

This section explains the functions of the buttons and the meanings of the LEDs on the operation panel.



F-1-26

[1] Display
Printer menus, statuses, and messages are shown on this display.
[2] Data reception lamp (green)
- Blinking: When the printer is making prints, this lamp indicates that a print job is being received or processed. When the printer is not making prints, this lamp indicates that the print job is suspended or the firmware data is being received.
- Not lit: This lamp indicates that there is no print job.
[3] Message lamp (orange)
- Stays lit: A warning message is being displayed.
- Blinking: An error message is being displayed.
- Not lit: The printer is normal or not powered.
[4] [Power] button
Use this button to turn on or off the printer.
When the printer is powered or in the sleep mode, the [Power] button lamp stays lit.
[5] [Stop] button
Use this button to stop execution of a job or drying ink.
[6] [Navi] button
Use this key to confirm the procedures for loading/unloading media, replacing an ink tank, and replacing the printhead.
[7] Direction buttons
- ◀ button: Pressing this button on the [tab selection screen] moves the tab. When a menu requiring you to enter a value is selected, pressing this button allows you to move to the left-hand digit.
- ▲ button: Pressing this button in a menu displays the upper item or setting value.
- ▶ button: Pressing this button on the [tab selection screen] moves the tab. When a menu requiring you to enter a value is selected, pressing this button allows you to move to the right-hand digit.
- ▼ button: Pressing this button in a menu displays the lower item or setting value.
[8] [OK] button
Pressing this button on the [tab selection screen] displays the menu for the displayed tab.
In the menu for a tab, pressing this button at the item preceded by [+] allows you to move to the bottom layer of menu items, where you can execute a menu item or set values. Also press this button when a message asking you to press the [OK] button is shown on the display.
[9] [Back] button
Pressing this button displays the preceding screen.
[10] [Menu] button
Pressing this button displays the [tab selection screen] screen.
[11] [Media Change] button
Press this button when loading/replacing media.
[12] [Media Feed] button
When roll media is loaded, pressing this button allows you to change the media position.
[13] [Media Cut] button
When roll media is loaded, pressing this button cuts the media.
[14] [Cut Sheet] lamp (green)
This lamp stays lit when cut sheet is selected as a media type.
[15] [Roll Media] lamp (green)
This lamp stays lit when roll media is selected as a media type.

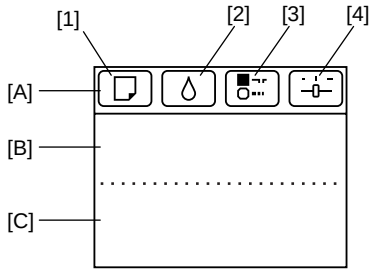
MEMO:
When the printer is in the sleep mode, pressing any button other than the [Power] button wakes up the printer.

1.6.2 Display

iPF750 / iPF755

When the printer starts, the [tab selection screen] appears on the display.
There are four types of tabs on which the relevant printer status, menu, and error information are displayed.

The tab appears as the icon to the top field of display. The tab moves by ◄ key or ► key.



F-1-27

[1] Media tab
This tab shows the printer status and menu related to media. When this tab is shown in reverse video, pressing the [OK] button displays the [Media] menu.
-[A] Top field of display: Shows the media icon in reverse video.
-[B] Middle field of display: Shows the printer status and a menu name.
-[C] Bottom field of display: Shows the media type in the first row and the media size in the second row.

[2] Ink tab
This tab shows the printer status and menu related to ink. When this tab is shown in reverse video, pressing the [OK] button displays the [Ink] menu.
-[A] Top field of display: Shows the ink icon in reverse video.
-[B] Middle field of display: Shows the printer status and a menu name.
-[C] Bottom field of display: Shows the remaining ink levels of the ink tanks loaded in the printer.

[3] Job tab
This tab shows the printer status and menu related to the print job. When this tab is shown in reverse video, pressing the [OK] button displays the [Job] menu.
-[A] Top field of display: Shows the job icon in reverse video.
-[B] Middle field of display: Shows the printer status and a menu name.

[4] Setup/Adjustment tab
This tab shows the printer status and menu related to setup/adjustment. When this tab is shown in reverse video, pressing the [OK] button displays the [Setup/Adjustment] menu.
-[A] Top field of display: Shows the setup/adjustment icon in reverse video.
-[B] Middle field of display: Shows the printer status and a menu name.
-[C] Bottom field of display: Shows the remaining ink level of the maintenance cartridge.

1.6.3 Menu

iPF750 / iPF755

The printer has a Main menu which includes a menu related to maintenance such as adjustment of ink ejection position of each nozzle and head cleaning, a menu related to printing settings such as auto cutting and ink drying time, and a menu related to parameters such as a message language.

1. Menu Operation

a) Displaying menu on each tab

Press the ◄ key or ► key on the [Tab Selection] screen to select a tab, and press the [OK] key.
A menu associated with each tab is displayed.

Press the ▲ key or ▼ key to select a menu and press the [OK] key.
The menu is selected and menu items are displayed.
Select a menu with [+] on the left side and press the [OK] key to navigate to lower level menus.

b) Setting menu items

Press the ▲ key or ▼ key to select an item to set and press the [OK] key.
The item is checked on the left side check box to confirm that it is set.
After 2 seconds, the menu that is one level above is displayed.

c) Setting numeric value for a menu item

Proceed as follows to set a numeric value for an item such as network settings.

1. Press the ◄ key or ► key to move the underscore to the field you want to enter a numeric value.
2. Press the ▲ key or ▼ key to enter a numeric value.
3. Repeat steps 1 and 2 and press the [OK] key when finished.

2. Main Menu
The structure and settings of the main menu is as follows. The asterisk mark "*" is default setting.
[Paper Menu]

T-1-2

First Level	Second Level	Third Level	Fourth Level	Fifth Level
[Load Paper]	[Roll Paper]	(The paper type is displayed here.)		
	[Cut Sheet]	(The paper type is displayed here.)		
[Eject Paper]				
[Chg. Paper Type]	[Roll Paper]			
	[Cut Sheet]			
[Chg. Paper Size]	[Sheet Size]			
	[Roll Length]			
	[Roll Width]			
[ManageRemainRoll]	[Off]			
	[On]			
[Paper Details]	(The paper type is displayed here.)	[Head Height]	[Automatic]*	
			[Highest]	
			[High]	
			[Standard]	
			[Low]	
			[Lowest]	
			[Super Low]	
		[Skew Check Lv.]	[High Accuracy]	
			[Standard]*	
			[Loose]	
			[Off]	
		[Cutting Mode]	[Automatic]	
			[Eject]	
			[Manual]	
		[Cut Speed]	[Fast]	
			[Standard]	
			[Slow]	
		[Trim Edge First]	[Automatic]	
			[Off]	
			[On]	
		[CutDustReduct.]	[Off]	
			[On]	
		[VacuumStrngth]	[Automatic]*	
			[Strongest]	
			[Strong]	
			[Standard]	
			[Weak]	
			[Weakest]	

T-1-3

First Level	Second Level	Third Level	Fourth Level	Fifth Level
[Paper Details]	(The paper type is displayed here.)	[Scan Wait Time]	[Off]	
			[1 sec.]	
			[3 sec.]	
			[5 sec.]	
			[7 sec.]	
			[9 sec.]	
		[Roll DryingTime]	[Off]	
			[30 sec.]	
			[1 min.]	
			[3 min.]	
			[5 min.]	
			[10 min.]	
			[30 min.]	
			[60 min.]	
		[NearEnd RollMrgn]	[3mm]	
			[20mm]	
		[NearEnd Sht Mrgn]	[3mm]	
			[20mm]	
		[Bordless Margin]	[Automatic]	
			[Fixed]	
		[Width Detection]	[Off]	
			[On]	
		[Return Defaults]		
[Keep Paper Type]	[Off]			
	[On]			

[Ink Menu]

T-1-4

First Level	Second Level	Third Level	Fourth Level	Fifth Level
[Rep. Ink Tank]				
[Head Cleaning A]				

[Job Menu]

T-1-5

First Level	Second Level	Third Level	Fourth Level	Fifth Level
[Print Job]*14	[Job List]	(Select Print Job.)	[Delete]	
			[Preempt Jobs]	
[Stored Job]*14	[Mailbox List]	(Enter a password if one has been set.)	[Job List]	[Print]
				[Delete]
			[Print Job List]	
[Job Log]	(Choose from information about the latest three print jobs.)	[Document Name]		
		[User Name]		
		[Page Count]		
		[Job Status]	[OK]	
			[CANCELED]	
		[Print Start Time]	[yyyy/mm/dd hh:mm:ss]	
		[Print End Time]	[yyyy/mm/dd hh:mm:ss]	
		[Print Time]	[xxxsec.]	
		[Print Size]	[xxxxxxxxsq.mm]	
		[Media Type]		
		[Interface]	[USB]	
			[Network]	
			[HDD]*14	
		[Ink Consumed]	(Indicates the ink color.)	[xxx.xxx ml]
[Print Job Log]				
[Pause Print]	[Off]			
	[On]			
[HDD Information]*14	[Total capacityBox free space]			

[Set./Adj. Menu]

T-1-6

First Level	Second Level	Third Level	Fourth Level	Fifth Level
[Test Print]	[Nozzle Check]			
	[Status Print]			
	[Interface Print]			
	[GL2 Set Print]			
	[Paper Details]			
	[Print Job Log]			
	[Menu Map]			
	[Color Palette]			
[Adjust Printer]	[Head Posi. Adj.]	[Auto(Standard)]		
		[Auto(Advanced)]		
		[Manual]*4		
	[Head Inc. Adj.]			
	[Feed Priority]	[Adj. Priority]	[Automatic]*	
			[Print Quality]	
			[Print Length]	
		[Adj. Quality]*5	[Auto(GenuinePpr)]	
			[Auto(OtherPaper)]	
			[Manual]	
		[Adjust Length]*6	[AdjustmentPrint]	[A:High]
				[B:Standard/Draft]
			[Change Settings]	[A:High]
				[B:Standard/Draft]
	[Adj. Fine Feed]*5			
[Maintenance]	[Head Cleaning]	[Head Cleaning A]		
		[Head Cleaning B]		
	[Nozzle Check]			
	[Replace P.head]			
	[Repl. maint cart]			
	[Head Info]	[ProductName:]		
		[s/n:]		
		[Days elapsed:]		
		[Count [Mdot]:]		
[GL2 Settings]	[Quality Manager]	[Color Mode]	[Monochrome]	
			[Color (CAD) 1]*	
			[Color (CAD) 2]	
			[Color (CAD) 3]	
			[Color (CAD) 4]	
			[Color (CAD) 5]	
		[Print Quality]	[Fast]	
			[Standard]*	
			[High]	
		[Input Resolution]	[600dpi]*	
			[300dpi]	
		[Print (Economy)]	[Off]*	
			[On]	

T-1-7

First Level	Second Level	Third Level	Fourth Level	Fifth Level	
[GL2 Settings]	[Paper Manager]	[Paper Source]	[Automatic]*		
			[Roll Paper]		
			[Cut Sheet]		
		[Margin]	[3mm(Standard)]*		
			[5mm]		
		[Conserve Paper]	[Off]*		
			[On]		
		[Auto Rotate]	[Off]*		
			[On]		
		[Nesting]*14	[Use Nesting]	[Off]*	
				[On]	
			[Nesting WaitTime]*7	[xx min.]	
			[Cut Lines]*7	[Off]*	
				[On]	
	[Line & Pen Manager]	[Enable merge]	[Off]*		
			[On]		
		[Pen Setup]	[Select Palette]	[Software]*	
				[Palette A]	
				[Palette B]	
				[Factory]	
			[Define Palette]	[Palette A] (Choose a pen number.)	[Width] (Indicates the Width value.)
					[Color] 0-255
					[Line Attributes]-[No Setting]/[Circle Setting]
				[Palette B] (Choose a pen number.) (Indicates Width, Color, and Line Attributes.)	(Specify the values of Width, Color, and Line Attributes.)
				[Factory] (Choose a pen number.) (Indicates Width, Color, and Line Attributes.)	
			[Reset Palette]	[All Palette]	
				[Palette A]	
				[Palette B]	
		[Smoothing]	[Software]*		
			[Smooth]		
		[ThickenFineLines]	[Off]*		
			[On]		
		[AdjustFaintLines]	[Off]		
			[On]		
	[ProcessingOption]	[Warning]	[Off]*		
			[On]		
		[On-the-Fly]*14	[Off]*		
			[On]		
		[PageSizeProcess1]	[Off]*		
			[On]		
		[PageSizeProcess2]	[Off]*		
			[On]		
	[GL2 Set Print]				

T-1-8

First Level	Second Level	Third Level	Fourth Level	Fifth Level	
[Interface Setup]	[EOP Timer]*12	[10 sec.]			
		[30 sec.]			
		[1 min.]			
		[2 min.]			
		[5 min.]			
		[10 min.]*			
		[30 min.]			
		[60 min.]			
	[TCP/IP]*12	[IPv4]	[IPv4 Mode]	[Automatic]	
				[Manual]*	
			[Protocol]*8	[DHCP]	[On]
					[Off]*
				[BOOTP]	[On]
					[Off]*
				[RARP]	[On]
					[Off]*
			[IPv4 Settings]*13	[IP Address]	xxx.xxx.xxx.xxx
				[Subnet Mask]	xxx.xxx.xxx.xxx
				[Default G/W]	xxx.xxx.xxx.xxx
		[IPv6]	[IPv6 Support]	[On]	
				[Off]*	
			[IPv6 StlessAddrs]	[On]*	
				[Off]	
			[DHCPv6]	[On]	
				[Off]*	
	[NetWare]*12	[NetWare]	[On]		
			[Off]*		
		[Frame Type]*9	[Auto Detect]		
			[Ethernet 2]		
			[Ethernet 802.2]*		
			[Ethernet 802.3]		
			[Ethernet SNAP]		
		[Print Service]*9	[BinderyPServer]		
			[RPrinter]		
			[NDSPServer]		
			[NPrinter]		

T-1-9

First Level	Second Level	Third Level	Fourth Level	Fifth Level
[Interface Setup]	[AppleTalk]*12	[On]		
		[Off]*		
	[Ethernet Driver]*12	[Auto Detect]	[On]*	
			[Off]	
		[Comm.Mode]*10	[Half Duplex]*	
			[Full Duplex]	
		[Ethernet Type]*10	[10Base-T]*	
			[100Base-TX]	
			[1000Base-T]	
		[Spanning Tree]	[Not Use]*	
			[Use]	
		[MAC Address]	xxxxxxxxxxxx	
	[Interface Print]*12			
	[Return Defaults]*12			
[System Setup]	[Sleep Timer]	[5 min.]*		
		[10 min.]		
		[15 min.]		
		[20 min.]		
		[30 min.]		
		[40 min.]		
		[50 min.]		
		[60 min.]		
		[240 min.]		
	[Buzzer]	[Off]		
		[On]*		
	[Contrast Adj.]	-4,-3,-2,-1,0*,+1,+2,+3,+4		
	[Date & Time]*12	[Date]	[yyyy/mm/dd]*11	
			[Time]	[hh:mm]
	[Date Format]	[yyyy/mm/dd]*		
		[dd/mm/yyyy]		
		[mm/dd/yyyy]		
	[Language]	[English]		
		[Japanese]		
		[Francais]		
		[Italiano]		
		[Deutsch]		
		[Espanol]		
		[Russian]		
		[Chinese]		
		[Korean]		

T-1-10

First Level	Second Level	Third Level	Fourth Level	Fifth Level
[System Setup]	[Time Zone]*12	[0:London(GMT)]		
		[+1:Paris,Rome]		
		[+2:Athens,Cairo]		
		[+3:Moscow]		
		[+4:Eerevan,Baku]		
		[+5:Islamabad]		
		[+6:Dacca]		
		[+7:Bangkok]		
		[+8:Hong Kong]		
		[+9:Tokyo,Seoul]		
		[+10:Canberra]		
		[+11NewCaledonia]		
		[+12:Wellington]		
		[-12:Eniwetok]		
		[-11:Midway is.]		
		[-10Hawaii(AHST)]		
		[-9:Alaska(AKST)]		
		[-8:Oregon (PST)]		
		[-7:Arizona(MST)]		
		[-6:Texas(CST)]		
		[-5:NewYork(EST)]		
		[-4:Santiago]		
		[-3:Buenos Aires]		
		[-2:]		
		[-1:Cape Verde]		
	[Length Unit]	[meter]*		
		[feet/inch]		
	[Detect Mismatch]	[Pause]		
		[Warning]		
		[None]		
		[Hold Job]*14		
	[Paper Size Basis]	[Roll Selection 1]	[ISO A3 (297mm)]*	
			[300mm Roll]	
		Roll Selection 2	[10inch (254mm)]*	
			[JIS B4 (257mm)]	
	[Keep Paper Size]	[Off]*		
		[On]		
	[TrimEdge Reload]	[Automatic]		
		[Off]*		
		[On]		
	[Rep.P.head Print]	[Off]		
		[On]*		

T-1-11

First Level	Second Level	Third Level	Fourth Level	Fifth Level
[System Setup]	[Nozzle Check]	[Frequency]	[Standard]*	
			[1 page]	
		[Warning]	[Off]*	
			[On]	
	[Use RemoteUI]*12	[On]*		
		[Off]		
	[Reset PaprSetngs]*12			
	[Erase HDD Data]*14	[High Speed]*12		
		[Secure High Spd.]*12		
		[Secure]*12		
	[Output Method]*14	[Print]*		
		[Print (Auto Del)]		
		[Save: Box XX]		
	[Print After Recv]*14	[Off]*		
		[On]		
	[Save: Shared Box]*12*14	[Off]		
		[On]		
[Prep.MovePrinter]				
[Admin. Menu]*12	[Change Password]*13			
	[Init.Admin.Pswd]*13			
[Printer Info]	[Paper Info]			
	[Ink Info]			
	[Head Info]			
	[System Info]			
	[Error Log]			
	[Other Counter]			

*1: Available only if ManageRemainRoll is On.
*2: Available only if Width Detection is set to Off.
*3: Print Anyway is displayed when a job being held is selected.
*4: Available after Auto(Advanced) in Head Posi. Adj. has been used once.
*5: Available when you have specified Feed Priority > Adj. Priority > Automatic or Print Quality.
*6: Available when you have specified Feed Priority > Adj. Priority > Automatic or Print Length.
*7: Available only if Use Nesting is set to On.
*8: Not shown if you have set IPv4 Mode to Manual.
*9: Not shown if you have set NetWare to Off.
*10: Not shown if you have set Auto Detect to On.
*11: Follows the setting in Date Format.
*12: Viewing and configuration is possible for administrators, and only viewing for other users.
*13: Viewing and configuration is possible for administrators only.
*14: Displayed only on models equipped with HDD.

3. Main menu during printing

The structure of the main menu during printing is as follows.

T-1-12

First Level	Second Level	Third Level	Fourth Level	Fifth Level
[Adj. Fine Feed]				
[Printer Info]	[Paper Info]			
	[Ink Info]			
	[Head Info]			
	[System Info]			
	[Error Log]			
	[Other Counter]			

4. Main Menu Settings
Main menu items are described in the following tables.

[Paper Menu]

T-1-13

Setting Item		Description/Instructions
[Load Paper]		Select and load either cut sheet or roll media.
[Eject Paper]		Remove currently loaded paper.
[Chg. Paper Type]		Change currently set paper type.
[Chg. Paper Size]		Change currently set paper size.
[ManageRemainRoll]		Choose On to print a barcode at the end of a roll before you remove it. The printed barcode can be used in managing the amount of roll paper left. ChooseOff if you prefer not to print the barcode.
[Paper Details] (The paper type is displayed here.)	[Head Height]	Adjust the Printhead height.
	[Skew Check Lv.]	If you print on the paper that has an irregular width, choose Loose for a higher skew detection threshold, or choose Off to disable skew detection. However, if paper is loaded askew when detection is Off, note that paper jams or Platen soiling may occur.
	[Cutting Mode]	Select whether to use standard round blade cutter or not. Select [Automatic] to cut paper after printing. Select [Manual] to print a line at the cut position after printing without cutting. Select [Eject] to prevent the printout from dropping until the ink dries after printing.
	[Cut Speed]	Choose the cutting speed. If you use adhesive paper, choosing Slow helps prevent adhesive from sticking to the cutter and keeps the cutter sharp.
	[Trim Edge First]	If a roll is loaded, the end of the paper will be cut.
	[CutDustReduct.]	Choose On to reduce the amount of debris generated when cutting film and similar media by printing a line at the cut position. This option reduces the amount of debris given off after cutting. It also helps prevent adhesive from sticking to the cutter and keeps the cutter sharp if you use adhesive paper.
	[VacuumStrngth]	Specify the level of suction that holds paper against the Platen.
	[Scan Wait Time]	Specify the time to wait for the ink to dry between each scan in bidirectional printing, in consideration of how quickly the ink dries. Note that printing will take longer if you specify a wait time.
	[Roll DryingTime]	Specify the time to wait for the ink to dry for each sheet.
	[NearEnd RollMrgn]	Specify the minimum margin at the leading edge of roll paper to ensure better printing quality at the leading edge. Note that if you choose 3mm, it may lower the printing quality at the leading edge and affect feeding accuracy. The printed surface may be scratched, and ink may adhere to the leading edge. It may also cause the Platen to become soiled.
	[NearEnd Sht Mrgn]	Specify a margin at the leading edge of sheets to ensure better printing quality at the leading edge. Note that if you choose 3mm, it may lower the printing quality at the leading edge and affect feeding accuracy. The printed surface may be scratched, and ink may adhere to the leading edge.
	[Bordless Margin]	Adjust the margin during borderless printing. Choose Automatic to have the printer automatically detect the paper width and configure the margin settings for borderless printing. If margins are mistakenly created when Automatic is selected, choose Fixed. In this case, the paper width is not detected automatically, and the document is printed without borders, using the margin settings required by the printer.
	[Width Detection]	Set to print from desired position such as when printing inside a frame. Select [Off] to disable paper width and skew detection. If paper is loaded askew, paper may jam or platen soiling may occur.
	[Return Defaults]	Choose OK to restore Paper Details to the factory default values.
[Print Paper Detail]		Print the paper settings set with [Paper Details].
[Keep Paper Type]		Select [On] to continue using the same type of paper.

[Ink Menu]

T-1-14

Setting Item	Description/Instructions
[Rep. Ink Tank]	When replacing the Ink Tank, choose Yes and follow the instructions on the screen.
[Head Cleaning A]	Specify Printhead cleaning options. Execute Head Cleaning A if printing is faint, oddly colored, or contains foreign substances.

[Job Menu]

T-1-15

Setting Item				Description/Instructions
[Print Job]	[Job List]	(Select Print Job.)	[Delete]	Delete the current job or queued jobs.
			[Preempt Jobs]	Print the job first after the current print job is finished printing.
			[Print Anyway]	Displayed when queued job is selected.
[Stored Job]	[Mailbox List]	(Enter a password if one has been set.)	[Job List]-[Print]	Prints a saved job.
			[Job List]-[Delete]	Deletes a saved job.
			[Print Job List]	Prints a list of saved jobs.
[Job Log]	(Choose from information about the latest three print jobs.)	[Document Name]		Displays the name of the document in the most recently printed job.
		[User Name]		Displays the name of the user who has transmitted the job.
		[Page Count]		Displays the number of sheets of the job.
		[Job Status]		Displays the result of processing of the job.
		[Print Start Time]		Displays the time at which the job started printing.
		[Print End Time]		Displays the time at which the job finished printing.
		[Print Time]		Displays the time spent printing the job.
		[Print Size]		Displays the size of the paper used for printing the job.
		[Media Type]		Displays the type of the paper used for printing the job.
		[Interface]		Displays the interface of the job.
		[Ink Consumed]		Displays the amount of ink consumed for printing the job.
[Print Job Log]				Print the print job information such as paper type, size, and ink consumption. Ink consumption is the approximate amount of ink used to print one sheet.
[Pause Print]				Select [On] to stop printing.
[HDD Information]				Displays the total size of the HDD and the remaining box size.

[Set./Adj. Menu]

T-1-16

Setting Item				Description/Instructions
[Test Print]	[Nozzle Check]			Print a nozzle check pattern.
	[Status Print]			Print the printer information.
	[Interface Print]			Print the interface settings.
	[GL2 Set Print]			Print the GL2 settings.
	[Paper Details]			Prints the paper settings set with [Paper Details].
	[Print Job Log]			Print print job information such as paper type, size, and ink consumption. Ink consumption is the approximate amount of ink used to print one sheet.
	[Menu Map]			Print the menu list.
	[Color Palette]			Print the GL2 color list.
[Adjust Printer]	[Head Posi. Adj.]	[Auto(Standard)]		Print and read a test pattern for the automatic adjustment of Printhead alignment relative to the printing direction.
		[Auto(Advanced)]		Print and read a test pattern for the automatic adjustment of Printhead alignment relative to the nozzle and printing direction.
		[Manual]		Print a test pattern for adjustment of Printhead alignment relative to the printing direction. Enter the adjustment value manually based on the resulting pattern.
	[Head Inc. Adj.]			Print an adjustment pattern for adjusting the inclination of the printhead.
	[Feed Priority]	[Adj. Priority]	[Automatic]	Set the priority feed precision. Normally select [Automatic]. Select [Print Quality] to print at high quality. Select [Print Quality] to reduce horizontal streaks. Select [Print Length] to accurately control the feed amount. However, selecting [Print Length] may cause colors to become slightly uneven in the carriage scan direction.
			[Print Quality]	
			[Print Length]	
		[Adj. Quality]	[Auto(GenuinePpr)]	Set when using paper described in the paper reference guide. A pattern to adjust the paper feed amount is printed, and the feed amount is automatically adjusted from the printed result.
			[Auto(OtherPaper)]	Set when using paper not described in the paper reference guide. A pattern to adjust the paper feed amount is printed, and the feed amount is automatically adjusted from the printed result. This takes longer than [Auto (GenuinePpr)] to print and consumes more ink.
			[Manual]	Select for paper that cannot be adjusted by [Auto(GenuinePpr)] or [Auto(OtherPaper)], such as highly transparent paper. Print a pattern to adjust the paper feed amount according to the type of paper.
		[Adjust Length]	[AdjustmentPrint]-[A:High]/[B:Standard/Draft]	Print a test pattern for adjustment relative to paper stretching or shrinkage, after which you can enter the amount of adjustment.
			[Change Settings]-[A:High]/[B:Standard/Draft]	Displayed when [Print Length] is selected as [Adj. Priority] for [Feed Priority]. Adjust the expansion rate of the currently loaded paper. Enter the result adjusted with [AdjustmentPrint] or the difference with your own measurement in %. Increase the adjustment value to increase the feed amount for paper that tends to expand, and reduce it for paper that tends to shrink.
	[Adj. Fine Feed]			Displayed when [Automatic] or [Print Quality] is selected as [Adj. Priority] for [Feed Priority]. Manually adjust the paper feed amount while printing.
[Maintenance]	[Head Cleaning]			Specify Printhead cleaning options. Choose Head Cleaning A if printing is faint, oddly colored, or contains foreign substances. Choose Head Cleaning B if no ink is printed at all, or if printing is not improved by Head Cleaning A.
	[Nozzle Check]			Print a nozzle check pattern.
	[Replace P.head]			Not displayed during a warning message that the remaining Maintenance Cartridge capacity is low. When replacing the Printhead, choose Yes and follow the instructions on the screen.
	[Repl. maint cart]			When exchanging the maintenance cartridge, choose Yes and follow the instructions on the screen.

T-1-17

Setting Item				Description/Instructions
[GL2 Settings]	[Quality Manager]	[Color Mode]	[Monochrome]	Print by the monochrome.
			[Color (CAD) 1]	Print by the standard color.
			[Color (CAD) 2]	Print by the bright color.
			[Color (CAD) 3]	Print by the color emulated the Canon iPF500/iPF600/iPF700/iPF510/iPF610/iPF710/iPF605/ iPF720/iPF810/iPF820.
			[Color (CAD) 4]	Print by the color emulated the HP Designjet 500/800.
			[Color (CAD) 5]	Print by the color emulated the HP Designjet 1000.
		[Print Quality]		Select the print quality.
		[Input Resolution]		Choose the printer input resolution from between [600dpi] and [300dpi].
		[Print (Economy)]		Prints with a lower grade of print than normal, but with less ink consumption. Select [ON] to economize on inks.
	[Paper Manager]	[Paper Source]		Select how to feed paper for printing on the HP-GL/2.
		[Margin]		Set the top/bottom and left/right margins of the paper. For cut-sheet, the trailing edge margin is 23mm. However, if the leading edge margin is set with [Paper Details], that value has priority.
		[Conserve Paper]		Prints by economizing on paper.
		[Auto Rotate]		If a document has its long side shorter than the roll width, the page rotates by 90 degrees automatically to economize on paper. If a document contains horizontally long data such that it has its long side longer than the roll width and its short side shorter than the roll width, the page rotates 90 degrees to print within the boundaries of the paper. HP RTL cannot rotate. In case of HP RTL image, the image may be truncated or a blank paper may be ejected because the image cannot be rotated even if the paper size is rotated by 90 degrees. In that case, set [Auto Rotate] to [Off].
		[Nesting]	[Use Nesting]	Select [On] to print pages when they are tiled fully to the roll width, instead of printing them one by one.
			[Nesting WaitTime]	Set the time to elapse before printing.
			[Cut Lines]	Select [On] to print perforated lines between pages.
	[Line & Pen Manager]	[Enable merge]		When lines overlap, set whether to merge or overwrite the colors of the overlapping lines. Select [Off] to overwrite with the line printed later. Select [On] to merge all overlapping colors.
		[Pen Setup]	[Select Palette]	Select the value related to pen from [Software], [Palette A], [Palette B], or [Factory]. Select [Software] to print according to the application side instruction. Select [Palette A] or [Palette B] to print with value set by [Define Palette].
			[Define Palette]	Set [Width], [Color], and [Line Attributes] for the palette's [Pen Number]. Select [Factory] to check the value when [Factory] is selected for [Select Palette]. For [Line Attributes], select the shape of line end and joint between lines as [No Setting] or [Circle Setting].
			[Reset Palette]	Return the [Define Palette] settings to factory settings.
		[Smoothing]		Choose whether to draw an arc with a smooth curve or with a polygon.
		[ThickenFineLines]		Select [On] to print thin lines clearly.
		[AdjustFaintLines]		If thin lines print in a tint of color varied from other patterns, selecting [Off] may provide the print result as intended, though the thin lines may print, interrupted, depending on the color.
	[ProcessingOption]	[Warning]		Select [On] to display warnings during GL2.
		[On-the-Fly]		In printing data consisting solely of HP RTL, if the data is slow to print, select [On] to expedite the time at which the data starts printing. Verify the print result to make sure that images are not chipped in this case.
		[PageSizeProcess1]		Normally, an image is printed inside margins necessary for printing, but if the image data itself has margins, the print position will not be offset when this is set [On].
		[PageSizeProcess2]		Select [On] to determine the paper size based on the drawing area.
	[GL2 Set Print]			Print the GL2 settings.

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Setting Item				Description/Instructions
[Interface Setup]	[EOP Timer]			Specify the timeout period before cancellation of print jobs that cannot be received by the printer.
	[TCP/IP]	[IPv4]	[IPv4 Mode]	Choose whether the printer IP address is configured automatically or a static IP address is entered manually.
			[Protocol]-[DHCP]/ [BOOTP]/ [RARP]	Specify the protocol used to configure the IP address automatically.
			[IPv4 Settings]-[IP Address]/ [Subnet Mask]/ [Default G/W]	Specify the printer network information when using a static IP address. Enter the IP address assigned to the printer, as well as the network subnet mask and default gateway.
		[IPv6]	[IPv6 Support]	Set whether to support IPv6 connection.
			[IPv6 StlessAddrs]	Set whether to use IPv6 stateless address.
			[DHCPv6]	Set whether to use DHCPv6 setting.
	[NetWare]	[NetWare]		Specify the NetWare protocol. To apply your changes, choose Register Setting.
		[Frame Type]		Specify the frame type to use.
		[Print Service]		Choose the print service.
	[AppleTalk]			Specify whether to use the AppleTalk protocol. To apply your changes, choose Register Setting.
	[Ethernet Driver]*12	[Auto Detect]		Specify the communication method. To apply your changes, choose Register Setting. Choose On for automatic configuration of the LAN communication protocol. Choose Off to use settings values of Comm.Mode and Ethernet Type.
		[Comm.Mode]		Choose the LAN communication method.
		[Ethernet Type]		Choose the LAN transfer rate.
		[Spanning Tree]		Choose whether spanning-tree packets are supported over the LAN.
		[MAC Address]		Displays the MAC address.
	[Interface Print]			Print the interface settings.
	[Return Defaults]			Select [OK] to return the [Interface Setup] settings to factory default.

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Setting Item			Description/Instructions
[System Setup]	[Sleep Timer]		Specify the period before the printer enters Sleep mode.
	[Buzzer]		Set the buzzer. Choose On for the buzzer to sound once for warnings and three times for errors.
	[Contrast Adj.]		Adjust the Display Screen contrast level.
	[Date & Time]	[Date]	Set the current date.
		[Time]	Set the current time. This can be set only when [Date] is set.
	[Date Format]		Specify the date format.
	[Language]		Specify the language used on the Display Screen.
	[Time Zone]		Specify the time zone. Time zone options indicate a main city in this time zone and the difference from Greenwich Mean Time.
	[Length Unit]		Choose the unit of measurement when roll length is displayed. You can switch the unit displayed for the remaining paper amount.
	[Detect Mismatch]		Set the printing behavior when the paper type and size set with the printer menu does not match the paper type and size set with the printer driver. Select [Pause] to pause printing. Select [Warning] to print a warning and continue printing. Select [None] to continue printing without displaying a warning. Select [Hold Job] to queue the job with different paper type and size in a job queue on the hard disk.
	[Paper Size Basis]	[Roll Selection 1]	When the size of roll paper is detected, select which roll width to use if the roll width is between [ISO A3 (297mm)] and [300mm Roll].
		Roll Selection 2	When the size of roll paper is detected, select which roll width to use if the roll width is between [10inch (254mm)] and [JIS B4 (257mm)].
	[Keep Paper Size]		Select [On] to give priority to paper size. If the margin set with the printer driver is less than the margin set with the printer menu, the margin set with the printer menu has priority and text and images extending beyond the margins are truncated. Select [Off] to give priority to margin settings. If the margins set with the printer driver and the margins set with the printer menu are different, the larger settings are used for printing.
	[TrimEdge Reload]		Select whether cut the leading edge of the paper when the paper at the standby position has loaded. Cut it when the roller trace at the standby position attract attention. Choose On to cut it everytime when the paper at the standby position has loaded. Choose Automatic to cut it when the paper at the standby position during two days or more has loaded.
	[Rep.P.head Print]		Select [On] to automatically perform [Adjust Detail] after replacing the Printhead.
	[Nozzle Check]		Set with [Frequency] the timing to check for nozzle clogging after printing. Select [Standard] to adjust the checking timing according to the nozzle usage. Select [1 page] to check after each page. Select [On] for [Warning] to display a warning when the print head nozzle is clogged while printing.
	[Use RemoteUI]		Select [Off] to disable access from RemoteUI and enable setting only from the operation panel.
	[Reset PaprSetngs]		Restores settings that you have changed with Media Configuration Tool to the factory default values.

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Setting Item			Description/Instructions
[System Setup]	[Erase HDD Data]	[High Speed]	Delete the file management information of the saved data in the HDD.
		[Secure High Spd.]	Overwrite the random data in the whole of the hard disk drive.
		[Secure]	Overwrite 00 and FF and random data in the whole of the hard disk drive once at a time. Execute the verify check whether the data has written correctly to the hard disk drive.
	[Output Method]	[Print]	Select the output method of jobs sent from software other than the printer driver. This can be set from the printer if you are using a printer driver. Select [Print] to print normally. Select [Print (AutoDel)] to print and delete the data in hard disk. Select [Save: Box XX] to save to box without printing.
		[Print (Auto Del)]	
		[Save: Box XX]	
	[Print After Recv]		Setting of jobs sent from software other than the printer driver. This can be set from the printer if you are using a printer driver. Select [On]to print after saving.
	[Save: Shared Box]		Select [Off] to print without saving to a common box.
[Prep.MovePrinter]			Select when moving the printer. Follow the instruction on the screen and perform the necessary process. This is not displayed when displaying a warning message about the amount remaining maintenance cartridge.
[Admin. Menu]	[Change Password]		Set a password to restrict displaying/setting of menus as follows. Allowed value is from 0 to 9999999. - Allow only administrator to display/set [IPv4] [Change Password] [Init.Admin.Pswd] - Allow administrator to display/set and non-administrator to display only [Interface Setup] (exclude [IPv4]) [Date & Time] [Date Format] [Time Zone] [Use RemoteUI] [Reset PaprSetngs] [Save: Shared Box]
	[Init.Admin.Pswd]		Press [OK] to return the [Administrator Menu] password to factory default.
[Printer Info]	[Paper Info]		The remaining ink levels and the remaining maintenance cartridge ink level are displayed.
	[Ink Info]		Displays the currently set paper type, size and printer settings.
	[Head Info]		Displays the Printhead information.
	[System Info]		Displays the firmware version, serial number, and interface information.
	[Error Log]		Displays the most recent error messages (up to 5).
	[Other Counter]		Displays the total area printed.

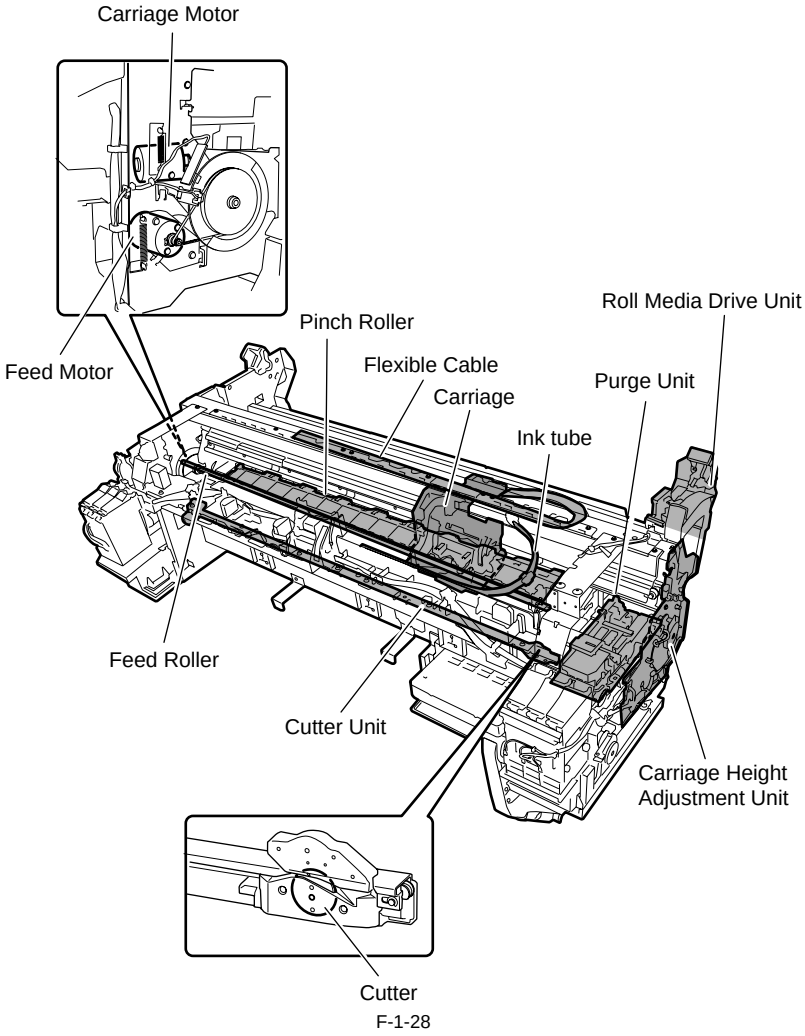
1.7 Safety and Precautions

1.7.1 Safety Precautions

1.7.1.1 Moving Parts

iPF750 / iPF755

Moving parts of the printer include the carriage unit driven by the carriage motor, the carriage belt, the ink tube, the flexible cable, the feed roller drives the feed motor, the pinch roller, and the purge unit driven by the purge motor.
To prevent accidents, the upper cover of the printer is locked during printing. If the top cover is opened in the online/offline mode, the carriage motor, feed motor, and other driving power supplies are turned off.



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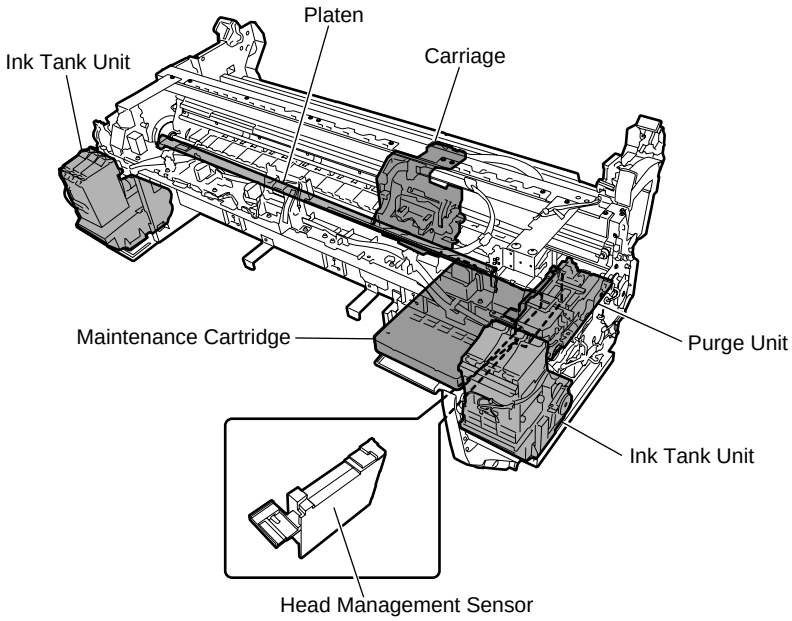
1.7.1.2 Adhesion of Ink

iPF750 / iPF755

(1) Ink passages

Be careful not to touch the ink passages of the printer to prevent the printer, workbench, ands, and clothes from being stained with ink.
The ink flows through the ink tank unit, carriage unit, purge unit, maintenance cartridge, and the ink tubes that relay ink to individual units.



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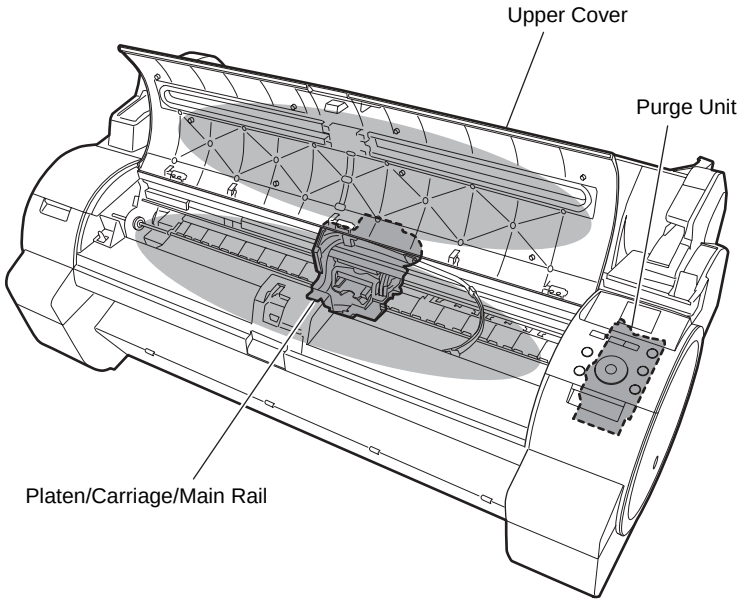
⚠

- Although the ink is not harmful to the human body, it contains organic solvents.
Ink may contaminate the surrounding parts. Carry out the work with due caution. If your hands are stained with ink, wash them with a plenty of water.
Be careful not to allow the ink to get into your mouth or eyes.
If the ink gets into your eyes, flush them with water well and see a doctor.
In case of accidental ingestion of a large quantity of ink, see a doctor immediately.
- It is also effective to use gloves to prevent ink from adhering when working.
- Since this ink contains pigment, stains will not come out of clothing.

(2) Ink Mist

Since the printhead prints by squirting ink onto the media, a minute amount of ink mist is generated in the printing unit during printing. The generated ink mist is collected in the printer by the airflow. However, uncollected ink mist may stain the platen, carriage unit, exterior, and purge unit.
These stains may soil the print media or hands and clothes when servicing the printer. Wipe them off carefully with a soft, well-wrung cloth.

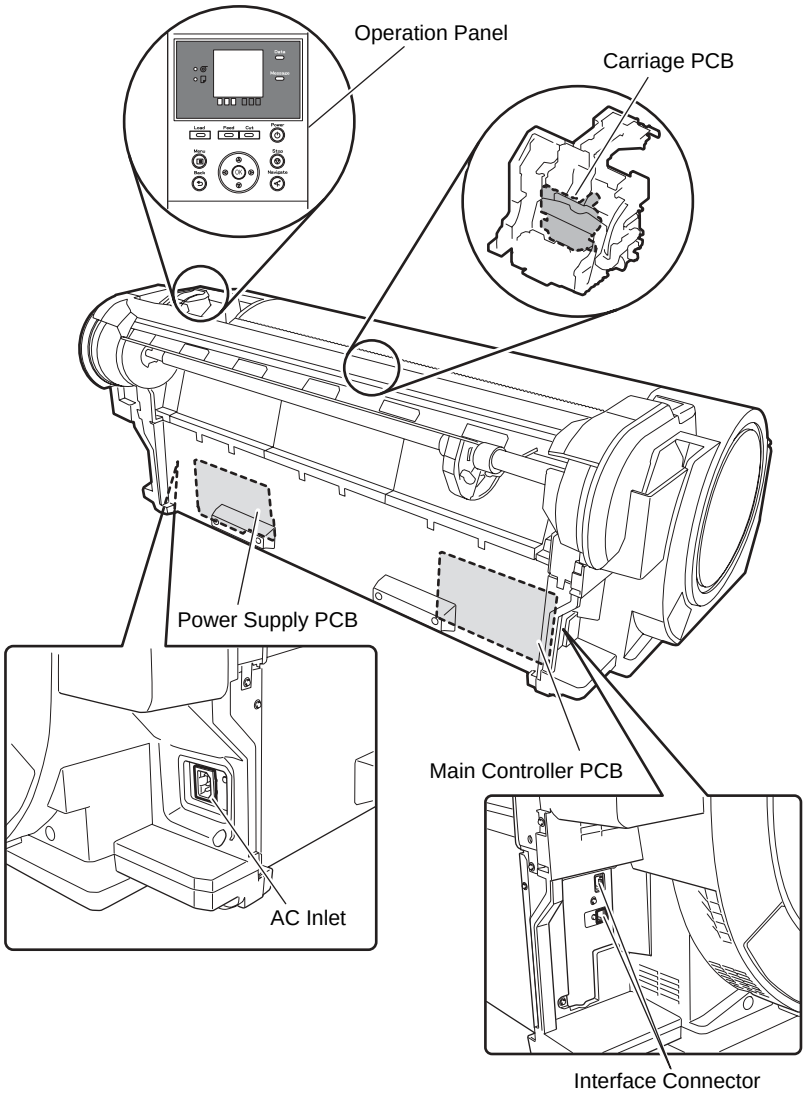


F-1-30

1.7.1.3 Electric Parts

iPF750

The electric parts of the printer are activated when the printer is connected to the AC power supply.
At the rear and left/right side of the printer are the main controller, power supply and interface connector. The carriage PCB is incorporated in the carriage unit, and the operation panel is on the upper right top cover.
When serving the printer with the cover removed, be extremely careful to avoid electric shock and shorting electrical devices.



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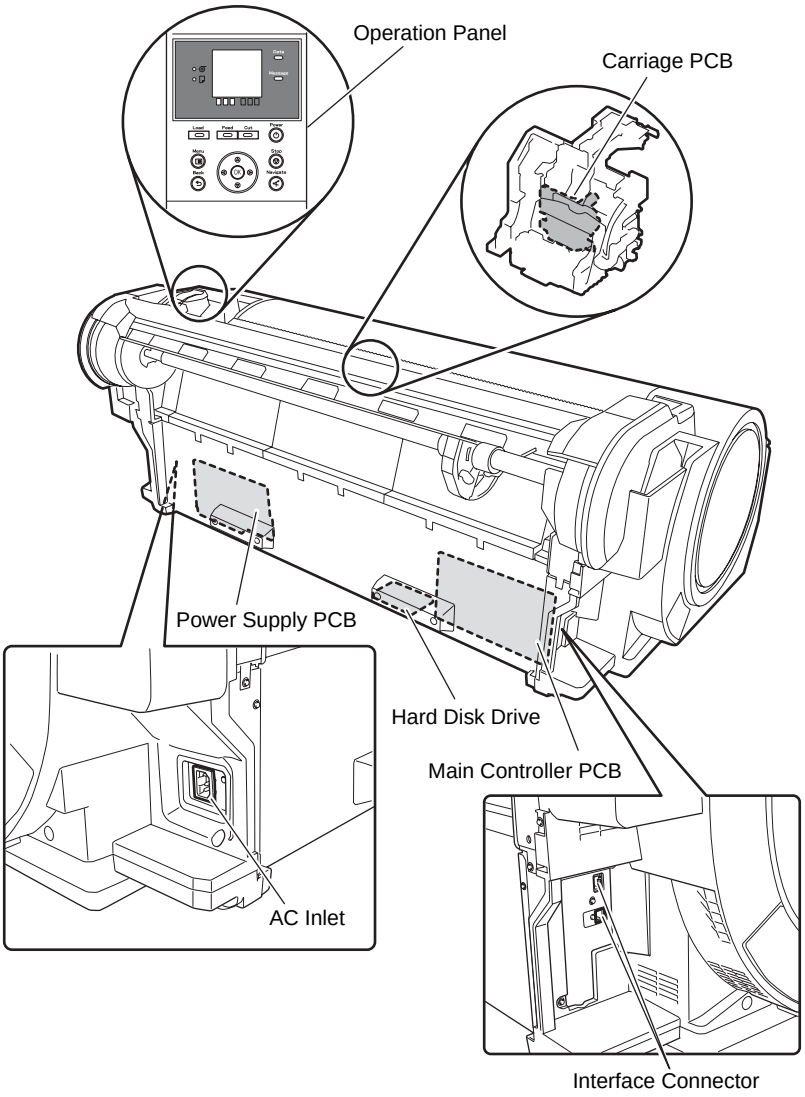
1.7.1.4 Electric Parts

iPF755

The electric parts of the printer are activated when the printer is connected to the AC power supply.
At the rear and left/right side of the printer are the main controller, power supply, HDD, and interface connector. The carriage PCB is incorporated in the carriage unit, and the operation panel is on the upper right top cover.
When serving the printer with the cover removed, be extremely careful to avoid electric shock and shorting electrical devices.



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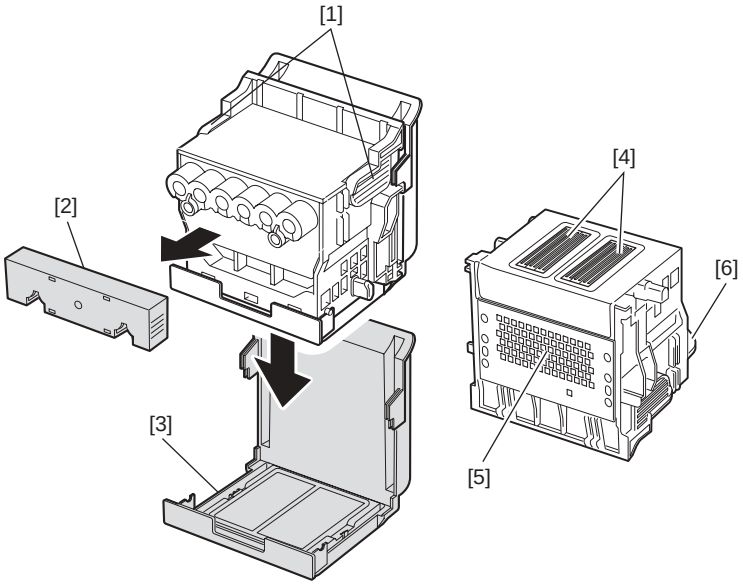
1.7.2 Other Precautions

1.7.2.1 Printhead

iPF750 / iPF755

1. How to Handle the Printhead
Do not open the printhead package until you are ready to install the head.
When installing the printhead in the printer, hold the knob[1] and then remove the protective cap 1[2] and protective cap 2[3] in that order.
Do not reattach the protective cap 2[3] to the printhead because the cap may damage the nozzles[4].
To prevent the nozzles from getting clogged with foreign matter or dried ink, install the printhead immediately after you remove the protective caps.
Also make sure to press down the locking lever of the printhead until you feel a click.
In addition, to prevent clogging of the nozzles with foreign matter and improper supply of ink, never touch the nozzles[4] or ink port[6], or wipe it with tissue paper or anything else.
Do not touch Electriacl contact[5].
Also, never attempt to disassemble/reassemble the printhead or wash it with water.

MEMO:
If the nozzles are clogged or an ink suction problem occurs, white lines can appear on the printout a constant frequency or color dulling can occur. If this problem is not resolved by cleaning operations, replace the printhead with a new one.



F-1-33

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[1] knob	[4] nozzles
[2] protective cap 1	[5] Electrical contact
[3] protective cap 2	[6] ink port

2. Capping
The printer will perform the capping operation when printing has ended or during standby due to an error, in order to protect the printhead and avoid ink leakage. If the power cord is accidentally unplugged, turn off the Power button, reconnect the power cord, and then turn on the Power button. Confirm that the printer starts up properly and enters to the "Online" or "Offline" status, and then power off the printer using the Power button.

⚠
Improper "capping operation" may cause clogged nozzles due to dried ink or ink leakage from the printhead.

3. When the printer is not used for a long time
Keep the printhead installed in the printer even when it is not used for an extended period of time.

⚠
If the printhead is left uninstalled, a printing failure may arise from closed nozzles due to depositing of foreign matter or dried ink when it is reinstalled.
Even if the head remains installed, the nozzle may dry out and cause a printing failure if the ink is drained for transport.

4. Conductivity of Ink
The ink used in this printer is electrically conductive. If ink leaks to into the mechanical unit, wipe clean with a soft, well-wrung damp cloth. If ink leaks onto electrical units, wipe them completely using tissue paper. If you cannot remove ink completely, replace the electrical units with new ones.

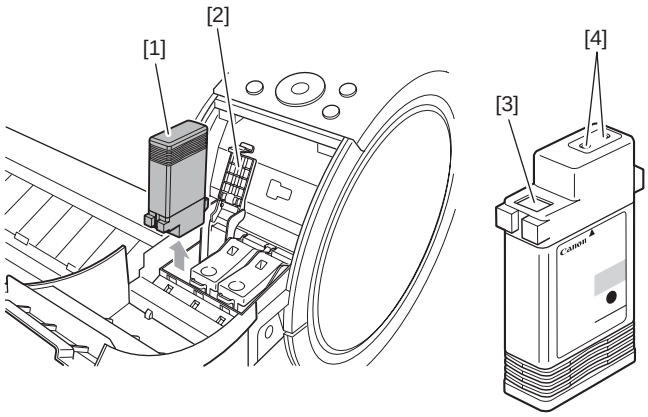
If electrical units are powered with ink leaked onto them, the units may damage.
Never connect the power cord when ink has leaded onto the electrical units.

1.7.2.2 Ink Tank

iPF750 / iPF755

1. Unpacking the Ink Tank
Do not unpack the ink tank until you are ready to install it.
When installing the ink tank, be sure to shake it slowly 1 to 2 times before unpacking it. Otherwise, the ink ingredients may precipitate and degrade the print quality.
To prevent foreign matter from entering the ink port, installed the unpacked ink tank in the printer immediately.

2. Handling the Ink Tank
To prevent foreign matter from entering the ink flow path and causing ink suction and printing problems, never touch the ink port and contacts of the ink tank.
When you press down the ink tank cover, the needle enters the ink port, allowing ink to flow between the printer and ink tank.
Do not raise or lower the ink tank cover except when replacing the ink tank.



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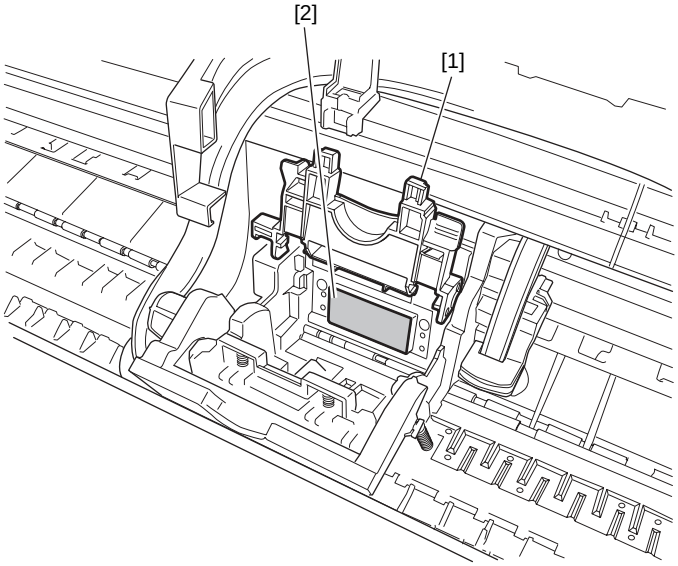
[1] Ink tank
[2] Ink tank lock lever
[3] Contacts
[4] Ink port

1.7.2.3 Handling the Printer

iPF750 / iPF755

1. Precautions against Static Electricity
Certain clothing may generate static electricity, causing an electrical charge to build up on your body. Such a charge can damage electrical devices or change their electrical characteristics.
In particular, never touch the printhead contacts.

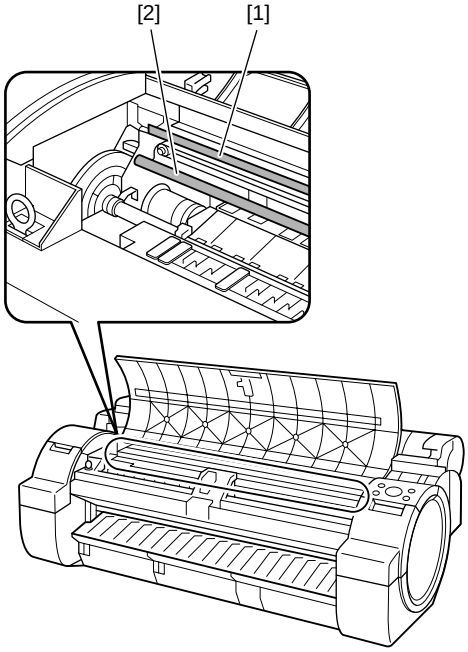


F-1-35

[1]Carriage unit
[2]Printhead contacts

2. Fixing the Carriage
After completion of printing, the carriage is mechanically locked by the lock pin in the purge unit at the same moment the printhead is capped.

3. Contact of Linear Scale/Carriage Shaft
Please do not touch a linear scale and the carriage shaft when the inside of the upper cover is opened, and execute maintenance.
When touching a linear scale and the carriage shaft, it might cause defective movement of the carriage and a defective print.



F-1-36

[1] Linear Scale
[2] Carriage Shaft

4. Replacing the maintenance cartridge
When the maintenance cartridge detects that tank is full, the "Repl. Maint. C" error appears. In this case the maintenance cartridge must be replaced.
The printer will not operate until the error is cancelled.
Be careful that the waste ink does not splash when you remove the used maintenance cartridge from the printer.

MEMO:
This printer has an EEPROM in the maintenance cartridge and the maintenance cartridge status is controlled by the main controller PCB which reads and writes the content of that EEPROM. Therefore, initializing the counter information will not be needed when the maintenance cartridge is replaced.

5. Refilling the ink
After removing the ink in the printer according to the automatic or manual ink draining procedure to disassemble, reassemble, or transport/ship the printer, refill the ink as soon as possible upon completion of those tasks.
If the ink remaining in the printer after the removal has dried up, the ink deposits on the surfaces of the components may cause damage or abnormal operation.

1.7.3 Precautions When Servicing Printer

1.7.3.1 Notes on the Data Stored in the Printer

iPF750 / iPF755

This printer counts the print length, number of ink tank replacements, carriage driving time, number of cleaning operations, number of cutter operations, and so on and stores them in the main controller's EEPROM as a COUNTER in Service mode.
COUNTER provides important information about the printer usage status.
You can check this information by printing it in the service mode or displaying it on the display.

Following the precautions below when servicing the printer.

(1) Repairing/replacing the PCB
When replacing the main controller, follow the specified replacement procedure.
For the main controller replacement procedure, see "Disassembly/Reassembly" > "Points to Note on Disassembly and Reassembly" > "Boards".

(2) After replacing the carriage unit
The information about the carriage driving time arises in the carriage unit. After replacing the carriage unit, select INITIALIZE > CARRIAGE in the service mode to initialize the information about the carriage driving time.

(3) After replacing the purge unit
The information about the number of cleanings arises in the purge unit. After replacing the purge unit, select [INITIALIZE] > [PURGE] in the service mode to initialize (clear) the information about the number of cleanings.

(4) On replacement of supplies
After supplies have been replaced, execute [INITIALIZE] > [PARTS COUNTER] > [PARTS xx] in service mode to initialize (clear) the parts counter information.
For the consumable parts, see "Maintenance" > "Consumable Parts".

You cannot check the counter information once it is initialized (cleared). Be careful not to initialize the counter information before checking it.
You cannot modify the counter information from the operation panel.

1.7.3.2 Confirming the Firmware Version

iPF750 / iPF755

Firmware has been downloaded to the main controller.
When you have replaced the main controller, check that the firmware is the latest version. If not, update it to the latest version.

Reference:
For how to up update the main controller, refer to "TROUBLESHOOTING" > "Update".

1.7.3.3 Precautions against Static Electricity

iPF750 / iPF755

Certain clothing may generate static electricity, causing an electrical charge to build up on your body. Such a charge can damage electrical devices.
To prevent this, discharge any static buildup by touching a grounded metal fitting before you start disassembling the printer.

1.7.3.4 Precautions for Disassembly/Reassembly

iPF750 / iPF755

The precautions for disassembly/reassembly are described in "Disassembly/Reassembly".

1.7.3.5 Self-diagnostic Feature

iPF750 / iPF755

The printer has a self-diagnostic feature to analyze hardware problems.
The self-diagnosis result is shown on the display and indicated by lamps.
For detailed information, see "Error Codes".

1.7.3.6 Disposing of the Lithium Battery

iPF750 / iPF755

The main controller PCB of this printer is equipped with a lithium battery to back up various data.

Risk of explosion if battery is replaced by an incorrect type.
Dispose of used batteries according to the instructions.

"For CA, USA Only
Included battery contains Perchlorate Material-special handling may apply. See
http://www.dtsc.ca.gov/hazardouswaste/perchlorate/ for detail."

Achtung:
Die Lithiumbatterie darf nur durch das Originalersatzteil (Parts Katalog) ersetzt werden;
ansonsten besteht Brand-/Explosionsgefahr.
Lithiumbatterien niemals aufladen, demontieren oder durch Verbrennen entsorgen;
bei der Entsorgung die örtlichen Entsorgungsvorschriften beachten (Schadstoffe; Sondermüll).

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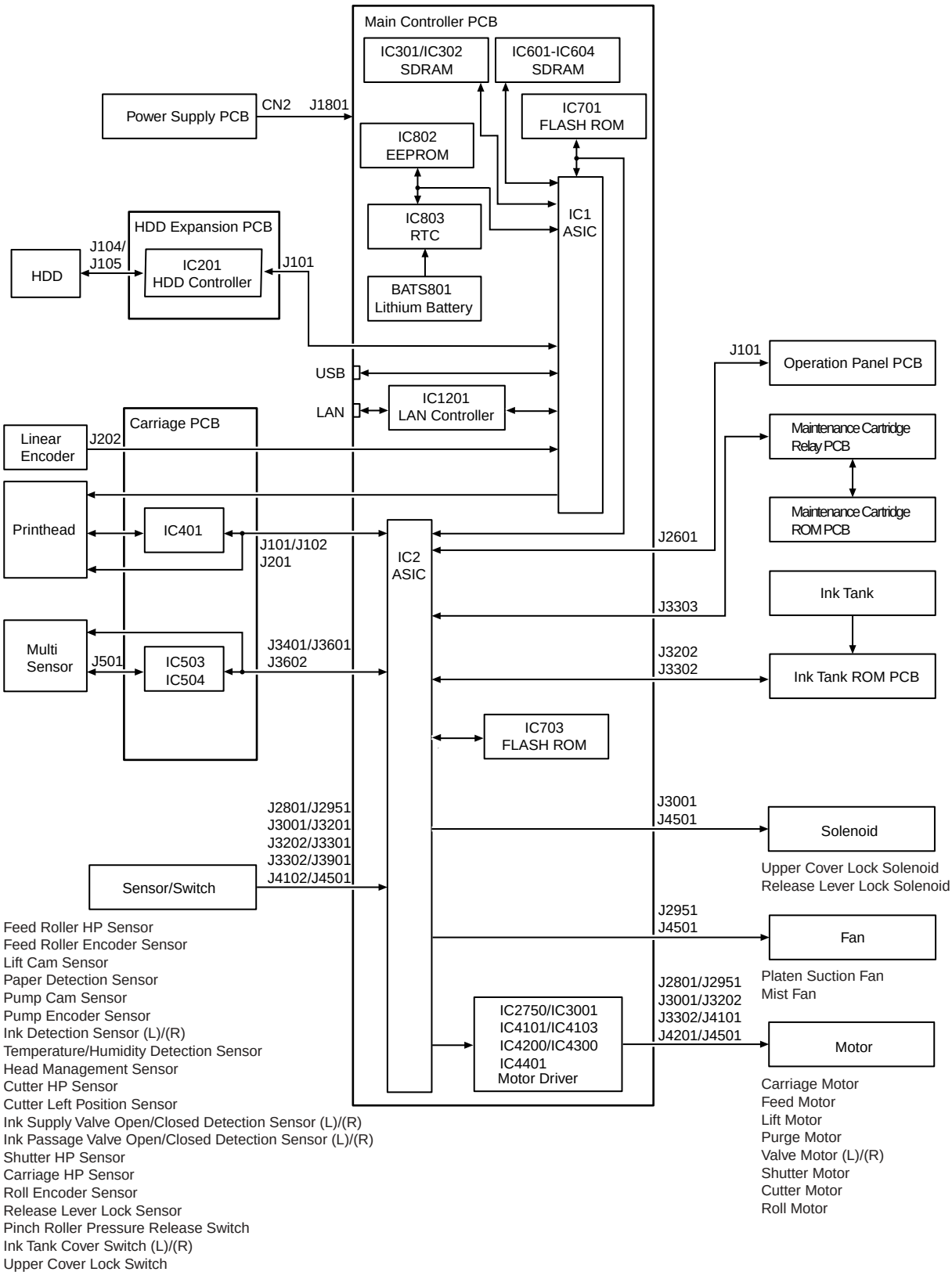
2.1 Basic Operation Outline

2.1.1 Printer Diagram

iPF755

Shown below is a printer diagram.

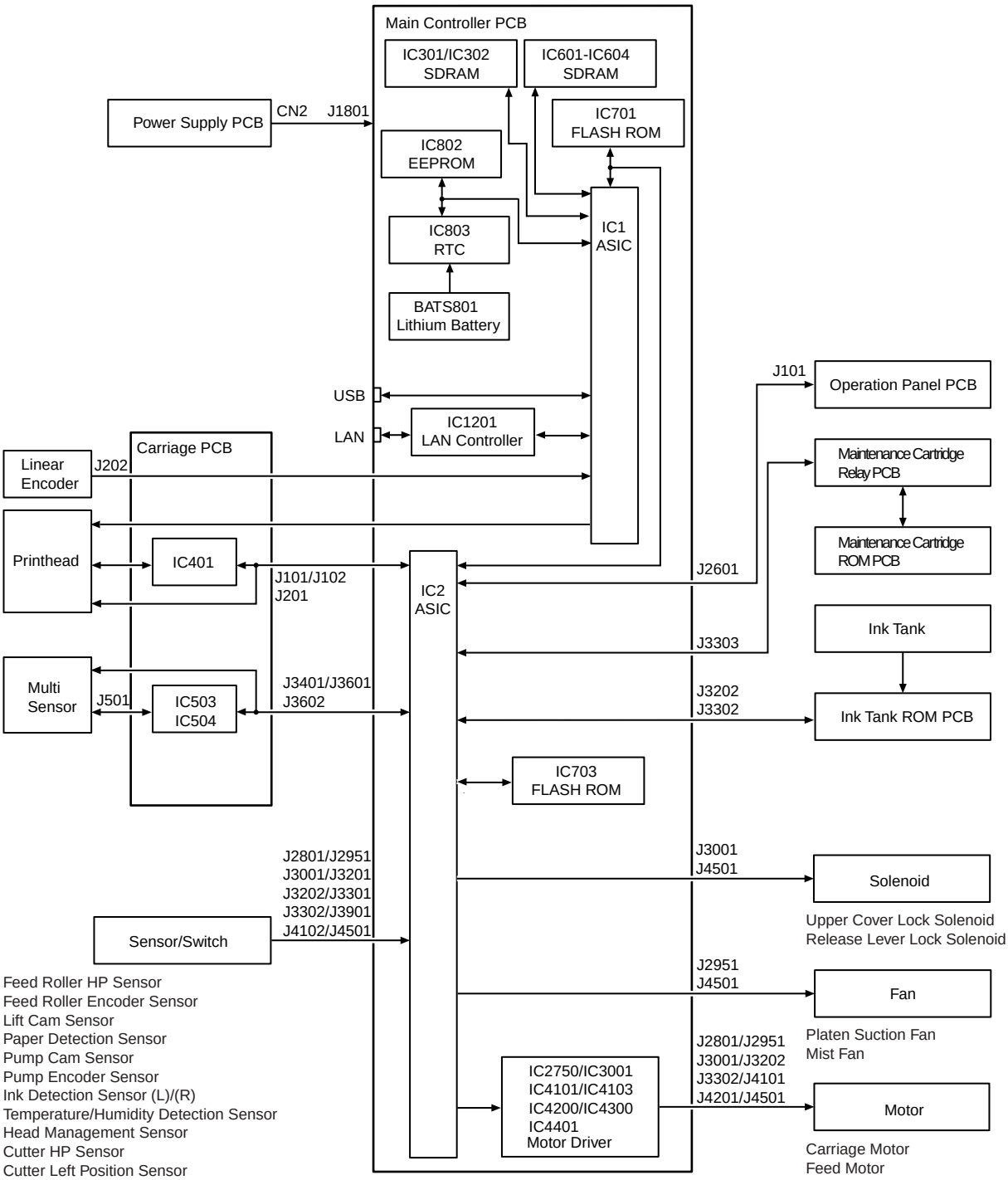


F-2-1

2.1.2 Printer Diagram

iPF750

Shown below is a printer diagram.

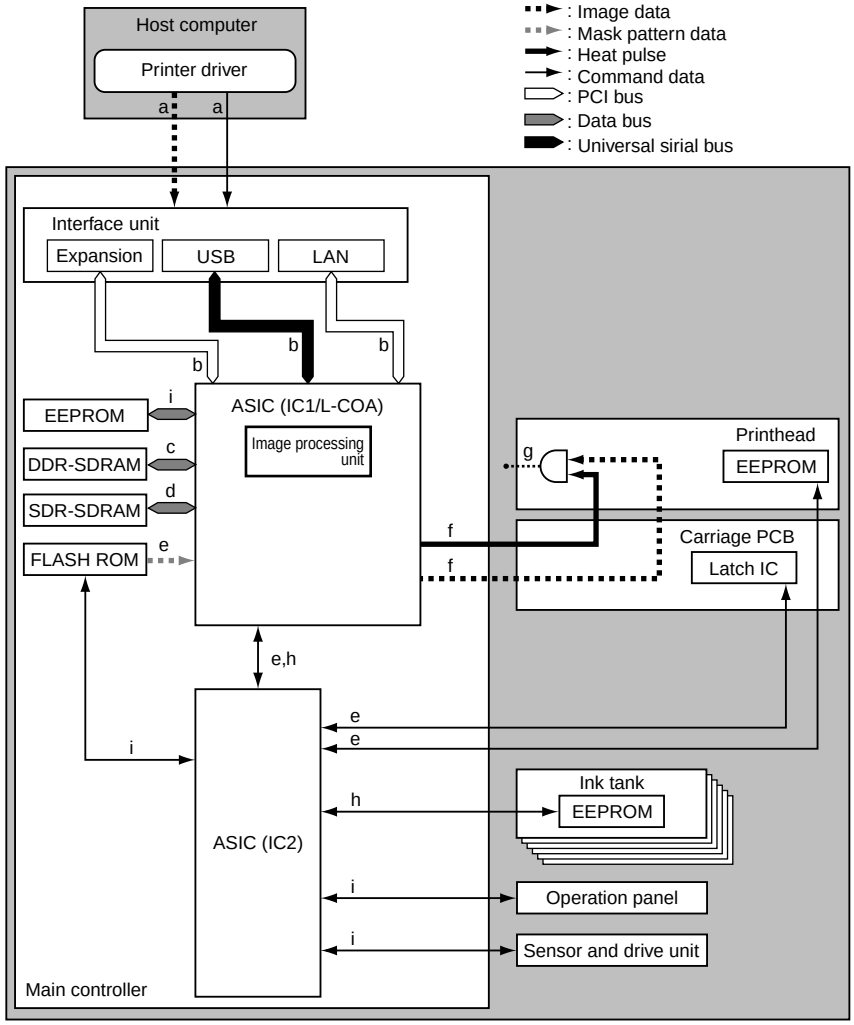


F-2-2

2.1.3 Print Signal Sequence

iPF750 / iPF755

The signal sequence from when the printer receives the print signals until printing starts is shown in Figure.



F-2-3

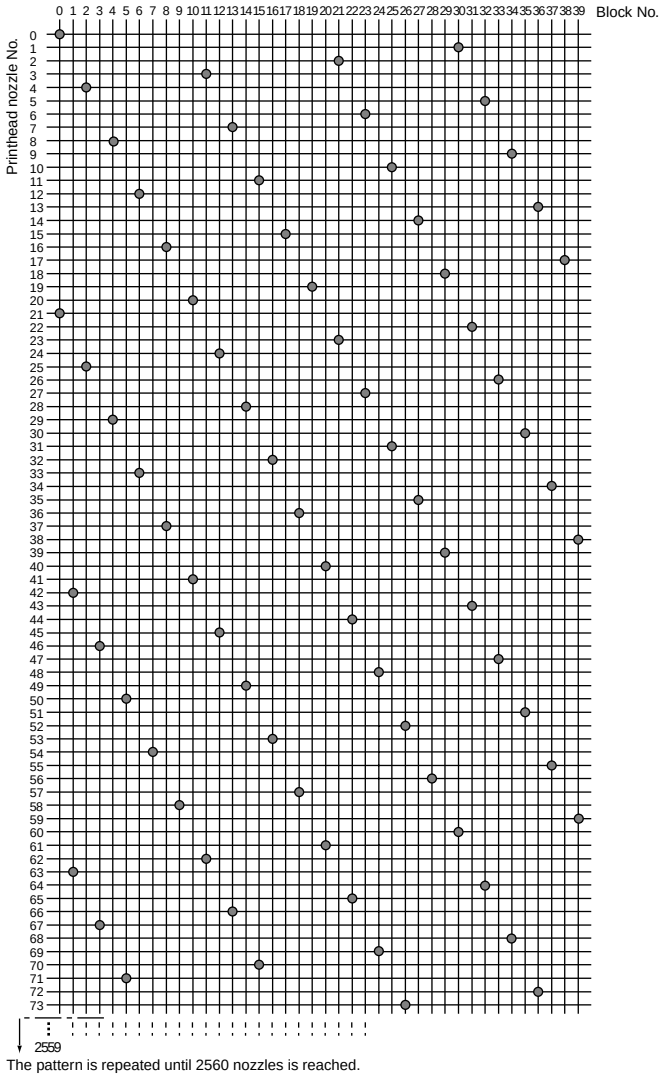
a) The printer driver on the host computer transmits print data, including command data, to the printer after compressing the image data, without resolution, color and 12-color binarization conversion.
To achieve high-quality image output, the image processing table data used for image data color conversion and binarization conversion are generated as command data to meet the Media Type and other specifications of the printer driver.
b) This printer receives print data from the individual interfaces on the main controller, transmitting the received print data to ASIC (IC1).
c) The main controller decompresses the print data transmitted to the ASIC and gets it through resolution, color and 5-color binarization conversion while loading the data into DDR-SDRAM from time to time.
It also converts the print data to 5-color binary equivalents of image and command data.
d) The ASIC (IC1) generates image data synthesized with mask data within the ASIC in sync with the discharge time while loading the data into DDR-SDRAM from time to time.
e) The ASIC (IC2) collects printhead information from EEPROM mounted on the printheads and the printer temperature from the latch IC on the carriage board and transmit them to the ASIC (IC1).
The ASIC (IC1) also receives mask pattern data from the firmware installed in flash ROM.
f) The ASIC (IC1) converts the image data synthesized with the mask pattern to data associated with the printhead information and the printer temperature, transmitting the data to the printheads as a print signal. It transmits heat pulses to the printheads at the same time to optimize head driving.
g) The printheads convert the received print signal from a serial signal to a parallel signal for each row of nozzles and ANDs it with the heat pulses for perform printing.
h) The ASIC (IC1) controls the general aspects of image processing and print drive control by detecting the status of the individual printer components with reference to the adjustment values stored in EEPROM. SDR-SDRAM is used as work memory.
i) The ASIC (IC2) controls the general aspects of drive control by controlling button actuations and message displays on the basis of the firmware installed in flash ROM.

2.1.4 Print Driving

iPF750 / iPF755

Print and control signals are transferred via the carriage PCB to the printheads to discharge inks from the nozzle assembly at printing.
Each printhead has 12 trains of nozzles arranged in a zigzag pattern.
This printer uses one printhead.
(In installed state, from left to right, C, M, Y, MBK, MBK, BK)
Print signals directed at each nozzle train are even-numbered nozzle data (Hx-x-DATA-x-EV) and odd-numbered nozzle data (Hx-x-DATA-x-OD). These are transferred in timing with a data transfer clock (Hx-CLK) and data latch pulses (Hx-LT).
The Heat Enable (Hx-x-HE-x) drive control signal enables inks to be discharged from the nozzles.

1. Pint drive control
Each train of nozzles in a printhead has 2,560 nozzles.
Ink discharge nozzles are selected split in 40-, 20- or 10-nozzle blocks according to the Block Enable information in the even-numbered nozzle data and odd-numbered nozzle data.
Each selected block of nozzles is impressed with a Heat Enable signal generated with variable pulse widths according to the head rank, head temperature and printer temperature for optimized ink discharges. The nozzles are driven by heater boards in the nozzles to discharge inks. Optimal nozzle blocks are selected according to the print path.
The diagram below illustrates the relationship between a 40-block nozzle and nozzles driven.

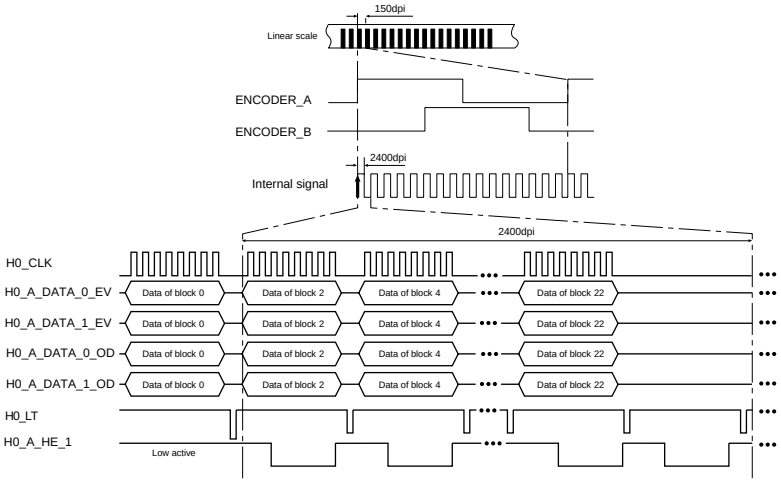


The pattern is repeated until 2560 nozzles is reached.

F-2-4

2. Print drive timing

Each printhead houses 12 trains of nozzles, which share the same data transfer clock (Hx-CLK) and data latch pulses (Hx-LT).
Even-numbered nozzle data (Hx-x-DATA-x-EV), odd-numbered nozzle data (Hx-x-DATA-x-OD) and the Heat Enable (Hx-x-HE-x) signal are generated for each nozzle train and controlled individually.
Printing is carried out in two ways through reciprocating motion of the carriage.
An encoder sensor mounted on the carriage generates a 150-dpi-pitched linear scale detection signal (ENCODER_A) and a signal (ENCODER_B) shifted 120 degrees in phase. The direction of carriage motion is detected from the status of the ENCODER_B signal relative to the leading edge of the ENCODER_A signal.
The printhead is driven using a 2400-dpi timing signal (internal signal), which is generated by dividing the ENCODER_A signal detected at the 150 dpi timing into 16 equal sections.
Printing in the forward direction is triggered at the leading edge of the detection signal (ENCODER_A).
Printing in the backward direction is carried out the same way as printing in the forward direction but at the trailing edge of the detection signal (ENCODER_A), when the order of heated nozzles is reversed depending on the sequence of transfer of even-numbered nozzle data and odd-numbered nozzle data.



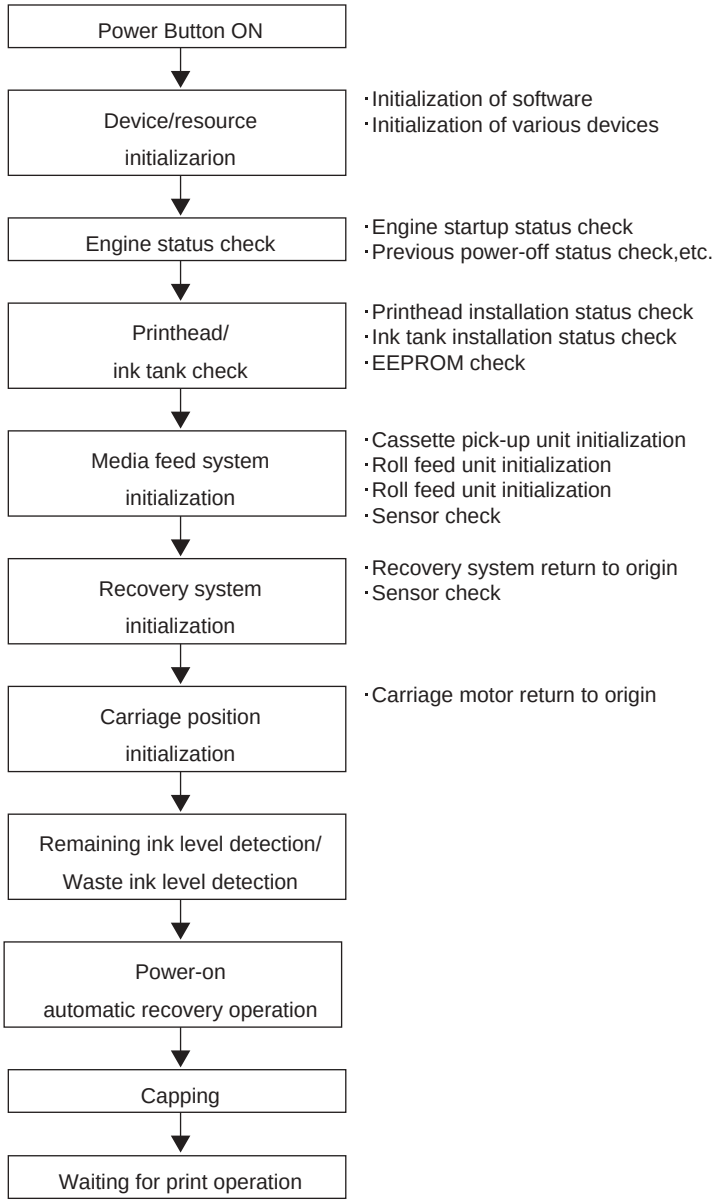
F-2-5

2.2 Firmware

2.2.1 Operation Sequence at Power-on

iPF750 / iPF755

The sequence of printer operations, from power-on to transition to online mode, is flowcharted below. The printer takes less than 1 minute to initialize itself(*).
* Excluding the times spent supplying inks and cleaning the printhead after leaving the printer for extended periods of time.



F-2-6

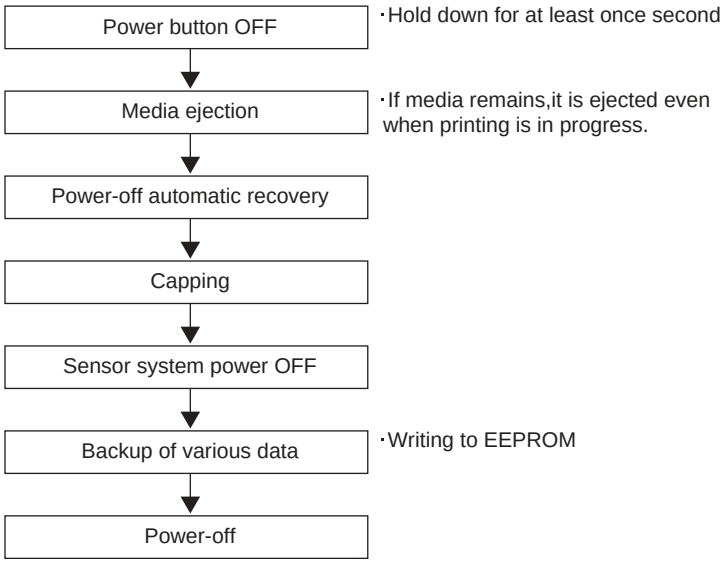
2.2.2 Operation Sequence at Power-off

iPF750 / iPF755

Turning off the power switch cuts off the drive voltage supply, launching a firmware power-off sequence as shown below.

If the power cord is disconnected from the wall outlet or the upper cover or any other cover is opend, the printer cancels the ongoing operation and shuts down immediately. Since printhead capping may or may not have been carried out properly, reconnect the power cord to the wall out and turn on the power switch. Making sure that the printer has entered online mode, turn off the power switch.

1. Power-off sequence



F-2-7

2.2.3 Print Control

iPF750 / iPF755

1. Print mode
This printer is capable of fast, high-quality printing without blur and non-uniform density by changing the carriage operation, media feeding, other printing methods according to the selected media type, print quality, print data and so on.
Printing is performed for each color using a maximum of 16 paths in each print mode according to the selected print quality.
This reduces density irregularities caused by the variation in the amounts of ink discharged from individual nozzles. In addition, it shifts the printing timing so that the current ink layer is nearly fixed before the next ink layer is applied, thus minimizing bleeding.
Even in the same mode, the printer operates in a different way depending on the media setting made using the printer driver.

a) Draft mode
In the draft mode, image data is thinned out and a single band (equivalent to the width of a nozzle array) is printed using two paths.
To use this mode, select "Draft" under "Print Quality" in the printer driver.

b) Standard mode
In the standard mode, a single band (equivalent to the width of a nozzle array) is printed using 4-8 (4, 6, or 8) paths.
To use this mode, select "Standard" under "Print Quality" in the printer driver.

c) High quality mode
In the high quality mode, a single band is printed using 8 or 12 paths.
To use this mode, select "High" under "Print Quality" in the printer driver.

d) Highest quality mode
In the high quality mode, a single band is printed using 12 or 16 paths.
To use this mode, select "Highest" under "Print Quality" in the printer driver.

T-2-1

Printing Modes

T-2-2

Media Type		Print Priority	Print Quality	Print-Pass	Printing Direction	Print Resolution (dpi)	Used BK ink
Plain Paper/ Recycled Paper	Plain Paper	Office Document	Standard	1/2	Bi-directional	1200x1200	MBK
		Line Document/Text	Draft	1	Bi-directional	1200x1200	MBK
				1	Bi-directional	1200x1200	MBK
			Standard	1	Bi-directional	1200x1200	MBK
			High	2	Bi-directional	1200x1200	MBK
				2	Bi-directional	1200x1200	MBK
		Image	Draft	1	Bi-directional	1200x1200	MBK
			Standard	2	Bi-directional	1200x1200	MBK
			High	4	Bi-directional	1200x1200	MBK
	Plain Paper (High Quality)	Office Document	Standard	1/2	Bi-directional	1200x1200	MBK
		Line Document/Text	Draft	1	Bi-directional	1200x1200	MBK
				1	Bi-directional	1200x1200	MBK
			Standard	1	Bi-directional	1200x1200	MBK
			High	2	Bi-directional	1200x1200	MBK
				2	Bi-directional	1200x1200	MBK
		Image	Draft	1	Bi-directional	1200x1200	MBK
			Standard	2	Bi-directional	1200x1200	MBK
			High	4	Bi-directional	1200x1200	MBK
	Plain Paper (High Grade)	Office Document	Standard	1/2	Bi-directional	1200x1200	MBK
		Line Document/Text	Draft	1	Bi-directional	1200x1200	MBK
				1	Bi-directional	1200x1200	MBK
			Standard	1	Bi-directional	1200x1200	MBK
			High	2	Bi-directional	1200x1200	MBK
				2	Bi-directional	1200x1200	MBK
		Image	Draft	1	Bi-directional	1200x1200	MBK
			Standard	2	Bi-directional	1200x1200	MBK
			High	4	Bi-directional	1200x1200	MBK
	All Plain Paper_Conserve MBK	Office Document	Standard	1/2	Bi-directional	1200x1200	MBK
		Line Document/Text	Draft	1	Bi-directional	1200x1200	MBK
				1	Bi-directional	1200x1200	MBK
			Standard	1	Bi-directional	1200x1200	MBK
			High	2	Bi-directional	1200x1200	MBK
				2	Bi-directional	1200x1200	MBK
		Image	Draft	1	Bi-directional	1200x1200	MBK
			Standard	2	Bi-directional	1200x1200	MBK
			High	4	Bi-directional	1200x1200	MBK
	Economy Bond Paper	Office Document	Standard	1/2	Bi-directional	1200x1200	MBK
		Line Document/Text	Draft	1	Bi-directional	1200x1200	MBK
				1	Bi-directional	1200x1200	MBK
			Standard	1	Bi-directional	1200x1200	MBK
			High	2	Bi-directional	1200x1200	MBK
				2	Bi-directional	1200x1200	MBK
		Image	Draft	1	Bi-directional	1200x1200	MBK
			Standard	2	Bi-directional	1200x1200	MBK
			High	4	Bi-directional	1200x1200	MBK
	Universal Bond Paper	Office Document	Standard	1/2	Bi-directional	1200x1200	MBK
		Line Document/Text	Draft	1	Bi-directional	1200x1200	MBK
				1	Bi-directional	1200x1200	MBK
			Standard	1	Bi-directional	1200x1200	MBK
			High	2	Bi-directional	1200x1200	MBK
				2	Bi-directional	1200x1200	MBK
		Image	Draft	1	Bi-directional	1200x1200	MBK
			Standard	2	Bi-directional	1200x1200	MBK
			High	4	Bi-directional	1200x1200	MBK
	Standard Paper 1569B 80g	Office Document	Standard	1/2	Bi-directional	1200x1200	MBK
		Line Document/Text	Draft	1	Bi-directional	1200x1200	MBK
				1	Bi-directional	1200x1200	MBK
			Standard	1	Bi-directional	1200x1200	MBK
			High	2	Bi-directional	1200x1200	MBK
				2	Bi-directional	1200x1200	MBK
		Image	Draft	1	Bi-directional	1200x1200	MBK
			Standard	2	Bi-directional	1200x1200	MBK
			High	4	Bi-directional	1200x1200	MBK
	Standard Paper 1570B 90g	Office Document	Standard	1/2	Bi-directional	1200x1200	MBK
		Line Document/Text	Draft	1	Bi-directional	1200x1200	MBK
				1	Bi-directional	1200x1200	MBK

Media Type		Print Priority	Print Quality	Print-Pass	Printing Direction	Print Resolution (dpi)	Used BK ink
Coated Paper	Coated Paper	Line Document/Text	Draft	1	Bi-directional	1200x1200	BK
				1	Bi-directional	1200x1200	BK
			Standard	2	Bi-directional	1200x1200	BK
			High	4	Bi-directional	1200x1200	BK
				4	Bi-directional	1200x1200	BK
		Image	Standard	4	Bi-directional	1200x1200	BK
			High	8	Bi-directional	2400x1200	BK
			Highest	12	Bi-directional	2400x1200	BK
	Heavyweight Coated Paper	Line Document/Text	Draft	1	Bi-directional	1200x1200	BK
				1	Bi-directional	1200x1200	BK
			Standard	2	Bi-directional	1200x1200	BK
			High	4	Bi-directional	1200x1200	BK
				4	Bi-directional	1200x1200	BK
		Image	Standard	4	Bi-directional	1200x1200	BK
			High	8	Bi-directional	2400x1200	BK
			Highest	12	Bi-directional	2400x1200	BK
	High Resolution Paper	Line Document/Text	Draft	1	Bi-directional	1200x1200	BK
				1	Bi-directional	1200x1200	BK
			Standard	2	Bi-directional	1200x1200	BK
			High	4	Bi-directional	1200x1200	BK
				4	Bi-directional	1200x1200	BK
		Image	Standard	4	Bi-directional	1200x1200	BK
			High	8	Bi-directional	2400x1200	BK
			Highest	12	Bi-directional	2400x1200	BK
	Premium Coated Paper	Line Document/Text	Draft	1	Bi-directional	1200x1200	BK
				1	Bi-directional	1200x1200	BK
			Standard	2	Bi-directional	1200x1200	BK
			High	4	Bi-directional	1200x1200	BK
				4	Bi-directional	1200x1200	BK
		Image	Standard	4	Bi-directional	1200x1200	BK
			High	8	Bi-directional	2400x1200	BK
			Highest	12	Bi-directional	2400x1200	BK
	LightWeight Coated paper J80270 90g	Line Document/Text	Draft	1	Bi-directional	1200x1200	BK
				1	Bi-directional	1200x1200	BK
			Standard	2	Bi-directional	1200x1200	BK
			High	4	Bi-directional	1200x1200	BK
				4	Bi-directional	1200x1200	BK
		Image	Standard	4	Bi-directional	1200x1200	BK
			High	8	Bi-directional	2400x1200	BK
			Highest	12	Bi-directional	2400x1200	BK
	Matte Coated Paper 170gsm	Line Document/Text	Draft	1	Bi-directional	1200x1200	BK
				1	Bi-directional	1200x1200	BK
			Standard	2	Bi-directional	1200x1200	BK
			High	4	Bi-directional	1200x1200	BK
				4	Bi-directional	1200x1200	BK
		Image	Standard	4	Bi-directional	1200x1200	BK
			High	8	Bi-directional	2400x1200	BK
			Highest	12	Bi-directional	2400x1200	BK
	Recycled Coated Paper	Line Document/Text	Draft	1	Bi-directional	1200x1200	BK
				1	Bi-directional	1200x1200	BK
			Standard	2	Bi-directional	1200x1200	BK
			High	4	Bi-directional	1200x1200	BK
				4	Bi-directional	1200x1200	BK
		Image	Standard	4	Bi-directional	1200x1200	BK
			High	8	Bi-directional	2400x1200	BK
			Highest	12	Bi-directional	2400x1200	BK
	Colored Coated Paper	Image	Standard	4	Bi-directional	1200x1200	MBK
			High	8	Bi-directional	1200x1200	MBK
	High Resolution Barrier Paper 180g	Line Document/Text	Draft	1	Bi-directional	1200x1200	BK
				1	Bi-directional	1200x1200	BK
			Standard	2	Bi-directional	1200x1200	BK
			High	4	Bi-directional	1200x1200	BK
				4	Bi-directional	1200x1200	BK
		Image	Standard	4	Bi-directional	1200x1200	BK
			High	8	Bi-directional	2400x1200	BK
			Highest	12	Bi-directional	2400x1200	BK

Media Type		Print Priority	Print Quality	Print-Pass	Printing Direction	Print Resolution (dpi)	Used BK ink
Photo Paper	Glossy Photo Paper	Image	Standard	6	Bi-directional	1200x1200	BK
			High	8	Bi-directional	2400x1200	BK
			Highest	16	Bi-directional	2400x1200	BK
	Semi-Glossy Photo Paper	Image	Standard	6	Bi-directional	1200x1200	BK
			High	8	Bi-directional	2400x1200	BK
			Highest	16	Bi-directional	2400x1200	BK
	Photo Paper Plus Semi-Gloss	Image	Standard	6	Bi-directional	1200x1200	BK
			High	8	Bi-directional	2400x1200	BK
			Highest	16	Bi-directional	2400x1200	BK
	Photo Paper	Image	Standard	6	Bi-directional	1200x1200	BK
			High	8	Bi-directional	2400x1200	BK
			Highest	16	Bi-directional	2400x1200	BK
	Poster Semi-Glossy Photo Paper	Image	Standard	6	Bi-directional	1200x1200	BK
			High	8	Bi-directional	2400x1200	BK
			Highest	16	Bi-directional	2400x1200	BK
	H64160 190 g/m² glossy	Image	Standard	6	Bi-directional	1200x1200	BK
			High	8	Bi-directional	2400x1200	BK
			Highest	16	Bi-directional	2400x1200	BK
	H62190 240 g/m² glossy	Image	Standard	6	Bi-directional	1200x1200	BK
			High	8	Bi-directional	2400x1200	BK
			Highest	16	Bi-directional	2400x1200	BK
	H62290 240 g/m² satin	Image	Standard	6	Bi-directional	1200x1200	BK
			High	8	Bi-directional	2400x1200	BK
			Highest	16	Bi-directional	2400x1200	BK
	H72190 300 g/m² glossy	Image	Standard	6	Bi-directional	1200x1200	BK
			High	8	Bi-directional	2400x1200	BK
			Highest	16	Bi-directional	2400x1200	BK
	H72790 300 g/m² glacier	Image	Standard	6	Bi-directional	1200x1200	BK
			High	8	Bi-directional	2400x1200	BK
			Highest	16	Bi-directional	2400x1200	BK
	H71190 270 g/m² glossy	Image	Standard	6	Bi-directional	1200x1200	BK
			High	8	Bi-directional	2400x1200	BK
			Highest	16	Bi-directional	2400x1200	BK
	H71290 270 g/m² satin	Image	Standard	6	Bi-directional	1200x1200	BK
			High	8	Bi-directional	2400x1200	BK
			Highest	16	Bi-directional	2400x1200	BK
	Premium RC Photo Luster , 10 mil	Image	Standard	6	Bi-directional	1200x1200	BK
			High	8	Bi-directional	2400x1200	BK
			Highest	16	Bi-directional	2400x1200	BK
	Photo paper Pearl 260g	Image	Standard	6	Bi-directional	1200x1200	BK
			High	8	Bi-directional	2400x1200	BK
			Highest	16	Bi-directional	2400x1200	BK
	H64160 190 g/m² glossy	Image	Standard	6	Bi-directional	1200x1200	BK
			High	8	Bi-directional	2400x1200	BK
			Highest	16	Bi-directional	2400x1200	BK
	H62190 240 g/m² glossy	Image	Standard	6	Bi-directional	1200x1200	BK
			High	8	Bi-directional	2400x1200	BK
			Highest	16	Bi-directional	2400x1200	BK
	H62290 240 g/m² satin	Image	Standard	6	Bi-directional	1200x1200	BK
			High	8	Bi-directional	2400x1200	BK
			Highest	16	Bi-directional	2400x1200	BK
	H72190 300 g/m² glossy	Image	Standard	6	Bi-directional	1200x1200	BK
			High	8	Bi-directional	2400x1200	BK
			Highest	16	Bi-directional	2400x1200	BK
	H72790 300 g/m² glacier	Image	Standard	6	Bi-directional	1200x1200	BK
			High	8	Bi-directional	2400x1200	BK
			Highest	16	Bi-directional	2400x1200	BK
	H71190 270 g/m² glossy	Image	Standard	6	Bi-directional	1200x1200	BK
			High	8	Bi-directional	2400x1200	BK
			Highest	16	Bi-directional	2400x1200	BK
	H71290 270 g/m² satin	Image	Standard	6	Bi-directional	1200x1200	BK
			High	8	Bi-directional	2400x1200	BK
			Highest	16	Bi-directional	2400x1200	BK

Media Type		Print Priority	Print Quality	Print-Pass	Printing Direction	Print Resolution (dpi)	Used BK ink
Synthetic Paper	Synthetic Paper	Image	Standard	6	Bi-directional	1200x1200	BK
			High	8	Bi-directional	2400x1200	BK
			Highest	16	Bi-directional	2400x1200	BK
	Adhesive Synthetic Paper	Image	Standard	6	Bi-directional	1200x1200	BK
			High	8	Bi-directional	2400x1200	BK
			Highest	16	Bi-directional	2400x1200	BK
Proofing Paper	Proofing Paper	Image	Standard	6	Bi-directional	1200x1200	BK
			High	8	Bi-directional	2400x1200	BK
			Highest	16	Bi-directional	2400x1200	BK
	J37261 200 g/square meter (non RC paper based)	Image	Standard	6	Bi-directional	1200x1200	BK
			High	8	Bi-directional	2400x1200	BK
			Highest	16	Bi-directional	2400x1200	BK
	J37261 200 g/square meter (non RC paper based)	Image	Standard	6	Bi-directional	1200x1200	BK
			High	8	Bi-directional	2400x1200	BK
			Highest	16	Bi-directional	2400x1200	BK
	Professional Proof and Photo Glossy 195g	Image	Standard	6	Bi-directional	1200x1200	BK
			High	8	Bi-directional	2400x1200	BK
			Highest	16	Bi-directional	2400x1200	BK
	Professional Proof and Photo Semiglossy 195g	Image	Standard	6	Bi-directional	1200x1200	BK
			High	8	Bi-directional	2400x1200	BK
			Highest	16	Bi-directional	2400x1200	BK
	Professional Proof and Photo Semigloss 255g	Image	Standard	6	Bi-directional	1200x1200	BK
			High	8	Bi-directional	2400x1200	BK
			Highest	16	Bi-directional	2400x1200	BK
Adhesive Matt Paper	High Resolution Graphic paper Self ADH	Image	Standard	6	Bi-directional	1200x1200	BK
			High	8	Bi-directional	2400x1200	BK
			Highest	16	Bi-directional	2400x1200	BK
Film Paper	Backlit Film	Image	Standard	6	Bi-directional	1200x1200	BK
			High	8	Bi-directional	2400x1200	BK
			Highest	16	Bi-directional	2400x1200	BK
	Outdoor Backlit (Durable Backlit Film/9578)	Image	Standard	6	Bi-directional	1200x1200	BK
			High	8	Bi-directional	2400x1200	BK
			Highest	16	Bi-directional	2400x1200	BK
CAD	CAD Tracing Paper	Line Document/Text	Draft	1	Bi-directional	1200x1200	MBK
				1	Bi-directional	1200x1200	MBK
			Standard	2	Bi-directional	1200x1200	MBK
			High	4	Bi-directional	1200x1200	MBK
				4	Bi-directional	1200x1200	MBK
	CAD Translucent Matte Film	Line Document/Text	Draft	1	Bi-directional	1200x1200	MBK
				1	Bi-directional	1200x1200	MBK
			Standard	2	Bi-directional	1200x1200	MBK
			High	4	Bi-directional	1200x1200	MBK
				4	Bi-directional	1200x1200	MBK
Special	SPECIAL 1	Image	Standard	6	Bi-directional	1200x1200	BK
			High	8	Bi-directional	2400x1200	BK
			Highest	16	Bi-directional	2400x1200	BK
	SPECIAL 2	Image	Standard	6	Bi-directional	1200x1200	BK
			High	8	Bi-directional	2400x1200	BK
			Highest	16	Bi-directional	2400x1200	BK
	SPECIAL 3	Image	Standard	6	Bi-directional	1200x1200	BK
			High	8	Bi-directional	2400x1200	BK
			Highest	16	Bi-directional	2400x1200	BK
	SPECIAL 4	Image	Standard	6	Bi-directional	1200x1200	BK
			High	8	Bi-directional	2400x1200	BK
			Highest	16	Bi-directional	2400x1200	BK
	SPECIAL 5	Image	Standard	6	Bi-directional	1200x1200	BK
			High	8	Bi-directional	2400x1200	BK
			Highest	16	Bi-directional	2400x1200	BK

2.2.4 Print Position Adjustment Function

iPF750 / iPF755

This printer supports a print position adjust the vertical and horizontal print position and the bidirectional print position of the printhead mounted on the carriage and the feedrate.
Print position adjustment work in two modes: automatic adjustment, in which print position adjustment patterns printed are detected by a multi sensor attached to the lower left part of the carriage, and manual adjustment, in which print position adjustment patterns that are slightly modified from one another are printed, so that visually verified adjustment values can be set from the operation panel.
To make print position adjustment, A3-or-larger-sized roll media or cut media are needed.

2.2.5 Head Management

iPF750 / iPF755

This printer supports a nozzle check function to spot non-discharging nozzles in the printhead.
When the printer detects a non-discharging nozzle. it starts cleaning the printhead automatically to correct its discharge failure. If cleaning does not work, the printer backs up the non-discharging nozzle with an alternative nozzle automatically to ensure unfailing print performance.

Detection timings (automatic):
Power-on, carriage cover open detection, print start (check timing variable by selecting Nozzle Check from the system menu).

2.2.6 Printhead Overheating Protection Control

iPF750 / iPF755

When an abnormal temperature rise in the printhead is detected, overheating protection control launches.
Overheating could occur in the printhaed after a spell of print operations without the nozzles being filled with inks.
Overheating protection control is implemented on the basis of the temperature detected by the head temperature sensor for each nozzle. When an abnormal temperature is detected in any nozzle train, overheating protection control is exerted at one of two levels according to that temperature.

Protection level 1:
If the head temperature sensor (DI sensor) detects a temperature higher than the protection temperature, it halts the carriage temporarily at the scan end position in the direction of travel according to the carriage scan status.
Printing resumes when the printhead radiates naturally to cool down to below a predetermined temperature or when 30 seconds or longer have elapsed since the detection of the temperature higher than the protection temperature.

Protection level 2:
If the head temperature sensor (DI sensor) detects a temperature higher than the abnormal temperature, the printer shuts down the print operation immediately, moving the carriage to the home position for capping, with an error indication on the display.

2.2.7 Pause between Pages

iPF750 / iPF755

An inter-page function is available to prevent ink rubbing, which keeps paper just printed hanging above the platen and waiting for a predetermined period of time before delivery.
The wait time is user-programmable from the print driver. This feature is particularly useful on paper that takes time to dry after printing, such as films.

2.2.8 White Raster Skip

iPF750 / iPF755

This printer supports a white raster skip function to bypass carriage scanning in a consecutive sequence of voids in print data for added throughput.

2.2.9 Sleep Mode

iPF750 / iPF755

The printer has sleep mode to save on its standby power requirement.
The printer transitions to sleep mode automatically when it has been left idle or no print data has been received for a predetermined period of time while the printer is online or offline.
The printer exits sleep mode when any operation panel key is activated or print data is received from the host computer.
The time to transition to sleep mode is variable from the operation panel (Default: 5minutes).

2.2.10 Hard Disk Drive

iPF755

This printer features a hard disk drive, which provides the following functions.
- Early release of the host computer
- Error recovery
- Job preservation
- Preserved job print
- Job queue handling

1) Early release of the host computer
Each print job received from the host computer is preserved to the hard disk drive attached to the printer, so the printer can proceed with independent printing, releasing the host computer before the print job completes.

2) Error recovery
If a print job aborts as a result of any print problem, such as a paper jam or insufficient paper, the printer reloads the print job stored on the hard disk so it can resume the print job without having to retransmit the job from the host computer to it.

3) Job preservation
Print jobs are in the common box, a place of temporary data storage, and in the personal box, a place of permanent data storage.
Normal print jobs are stored in the common box as they are received. Due to the limited hard disk space available, jobs stored in the common box are deleted from the oldest one in sequence.
Print jobs can be simply stored in the personal box without printing. Print jobs stored in the common box can be moved to the personal box.

4) Preserved job handling
Print jobs stored in the personal box or common box can be printed from the operation panel.

5) Job queue handling
Multiple jobs queued for print can be handled. including the raising priority order of selected jobs in the queue or canceling selected print jobs.

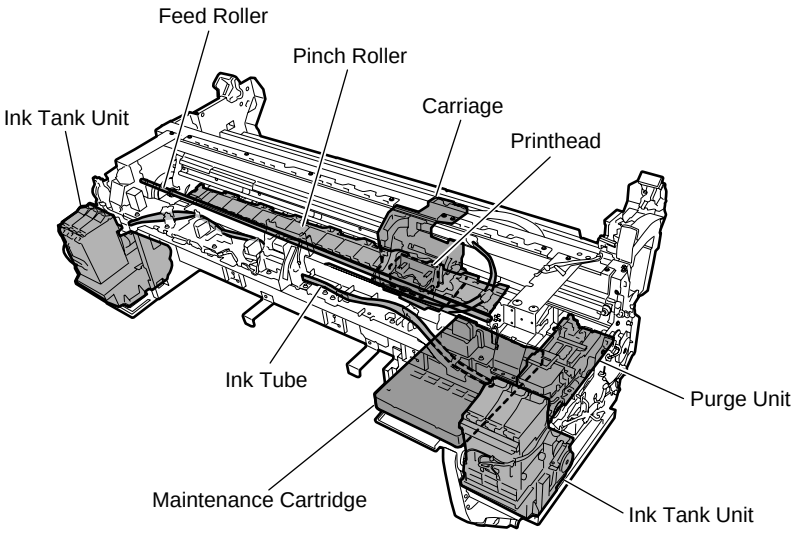
2.3 Printer Mechanical System

2.3.1 Outline

2.3.1.1 Outline

iPF750 / iPF755

The printer mechanism can be broadly divided into two major components: the ink passage and paper path.
The ink passage consists of the ink tank unit, the carriage unit having a printhead, the purge unit, the maintenance cartridge, and the tube unit which are used to supply, circulate, and suck ink.
The paper path consists of the feed roller unit to support one type of media feeding, transport, and ejection.
This section provides an overview of these mechanical components.



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2.3.2 Ink Passage

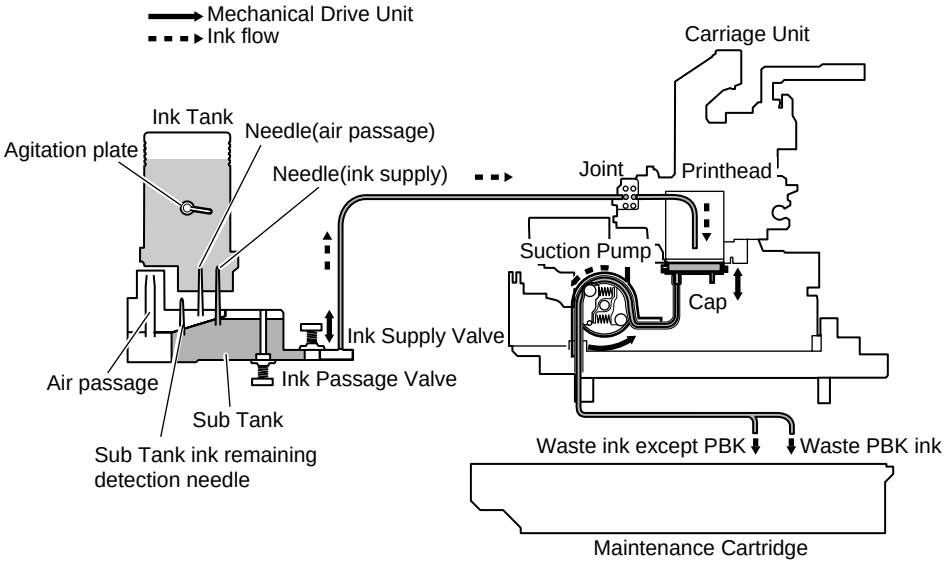
2.3.2.1 Ink Passage

2.3.2.1.1 Overview of Ink Passage

iPF750 / iPF755

The ink passage houses the ink tank, printhead, caps, maintenance jet tray, maintenance cartridge, waste ink collector, ink tubes interconnecting the mechanical units, suction pump driven mainly for sucking inks and so on. Its functions include supplying, circulating and sucking inks.

The ink passage (per color) is schematically shown below, along with the ink flow.



F-2-9

a) Supplying inks from the ink tanks to the ink supply valve assembly
The ink tanks each contain an ink to feed the printhead.
Head differences allow the inks to flow from the ink tanks to the subtanks first, then to the ink supply valves throught the ink passage valves.
Air is discharged through the air passage of the subtanks to keep the internal pressure of the ink tanks constant.

b) Supplying inks from the ink supply valves to the printhead
The ink stored in an ink tank flows to the printhead when the suction pump is driven with the ink supply valve opened and the head capped.
The ink sucked from the caps flows to the maintenance cartridge.

c) Supplying inks while printing
The ink supply valves and ink passage valves are kept open while printing, so that inks are constantly feeding to the printhead under the negative pressure of the nozzle assembly caused by discharging inks.
Further, waste inks sucked in a cleaning operation and inks from the maintenance jet tray flow into the maintenance cartridge.

If all of ink passages are opened (no ink tank is installed, the ink supply valve is opened, the ink passage valve is opened, and the printhead fixer lever is opened) when the ink tube is filled with ink, the ink in the ink tube may reverse-flow due to the fluid level difference and ink may leak from the hollow needle of the ink tank. Do not open all of the ink passages at the same time when the ink tube is filled with ink.

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d) Agitation of ink in the ink tank
Ink in the ink tank and the sub tank are agitated to prevent precipitation of pigment-based ink in the ink tank and sub tank.
This function is implemented by reverse-flowing ink to the ink tank and sub tank by opening and closing the ink supply valve and ink passage valve in succession.
Inside the ink tank is provided with an agitation plate to assist agitation of ink. (The agitation plate is also provided in the dye ink tank.
- Operation timing: When a new ink tank is installed or when 168 hours have lapsed since the previous agitation (the agitation is performed irrespective of the whether the printer is printing or cleaning its head)
- Ink supply valve opening/closing count: 30 times (every 30 seconds)
If 336 or more hours have lapsed, the ink valve opening/closing count and the time until the next agitation are changed according to the length of the tame lapsed.

2.3.2.2 Ink Tank Unit

2.3.2.2.1 Structure of Ink Tank Unit

iPF750 / iPF755

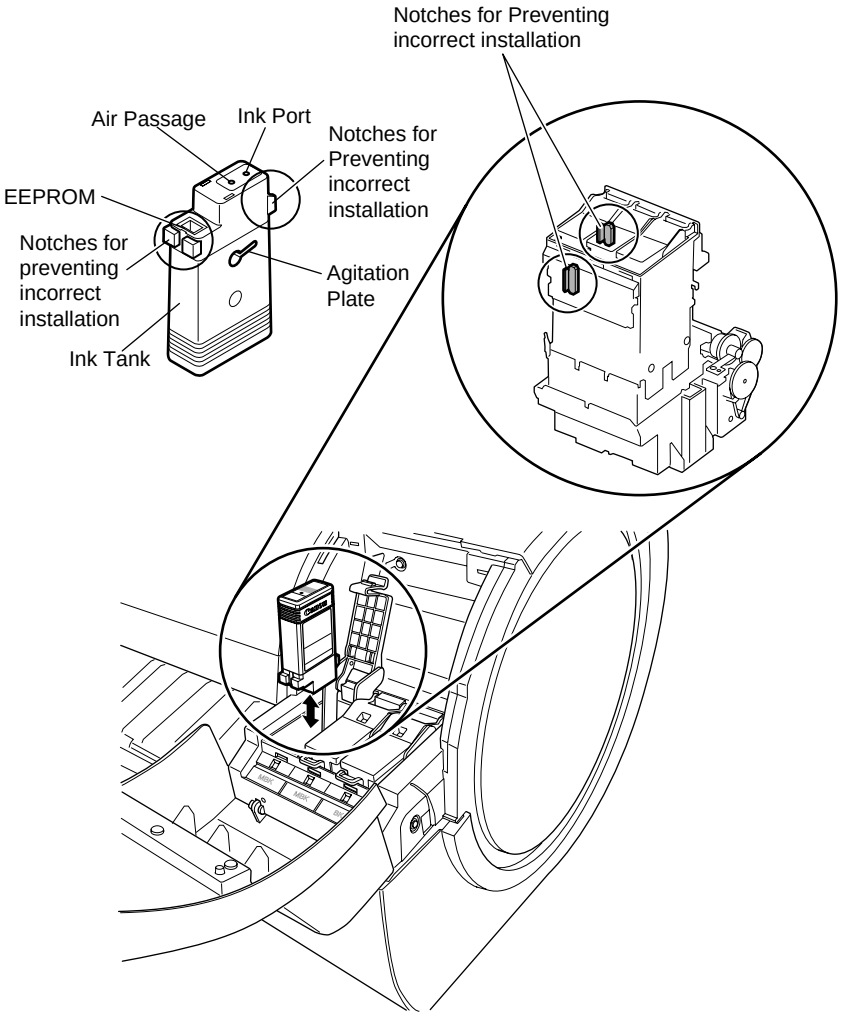
a) Ink tank
Each ink tank contains 130 ml of ink (the starter ink tank supplied with the printer contains 90 ml of ink) for each color. The amount of ink is memorized in the EEPROM mounted to the ink tank.
The amount of the ink remaining in the ink tank is detected as a dot count according to the data memorized in the EEPROM.
When the electrodes mounted to the hollow needle detect a con-conductive state, a message appears on the display to indicate that the ink is nearly empty. If the dot count reaches the prescribed value, the ink tank is considered to be empty.

b) Ink port
When the ink tank lock lever is pressed down, the hollow needle enters the ink port (covered with a rubber plug), establishing an ink passage between the printer and ink tank.

c) Air passage
When the ink tank lever of the printer is pressed down, the hollow needle enters the air passage (covered with a rubber plug) and thus the internal pressure of the ink tank is released, maintaining the internal pressure constant.

d) Notches for preventing incorrect insertion
The ink tanks have notches for preventing insertion. Wrong ink tanks cannot be installed in place due to these notches.
The ink tank lock lever can lowered to start ink supply only when the ink tank has been installed in place.

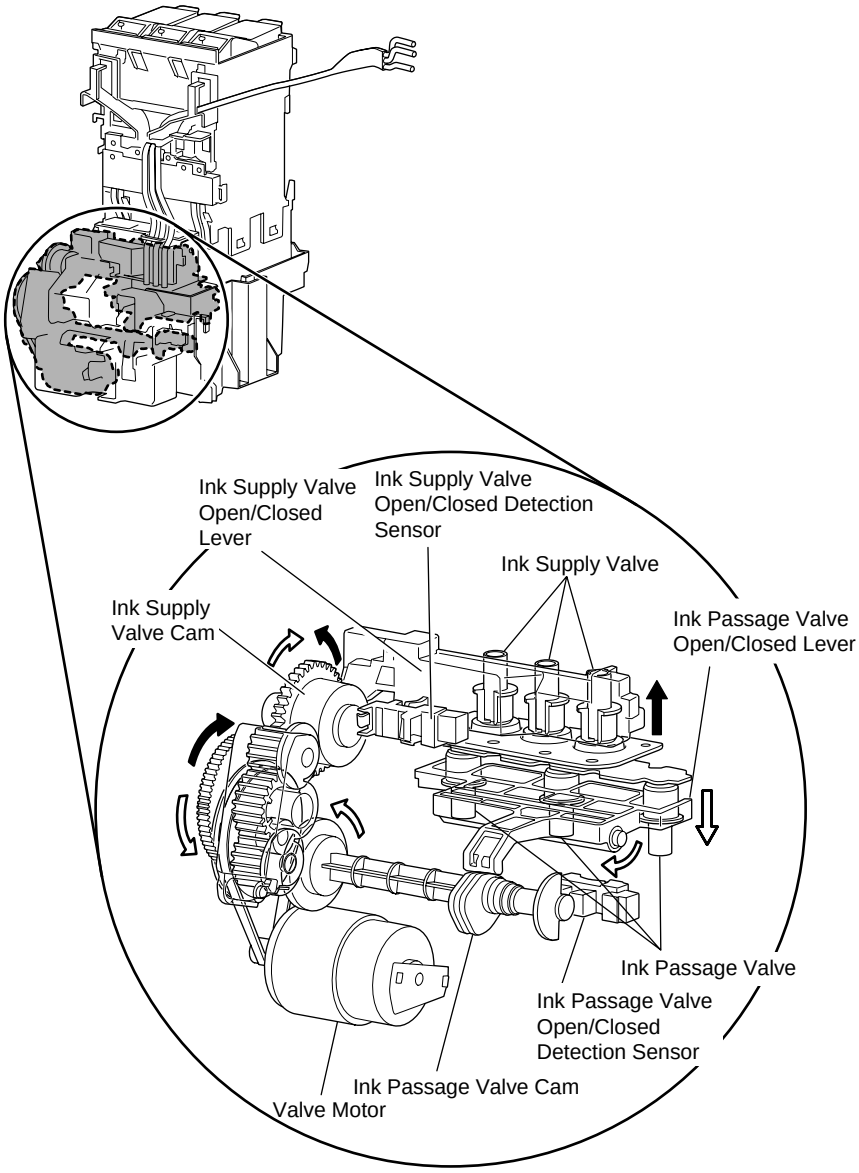
e) Agitation plate
The agitation plate assists the ink agitation which is performed to prevent precipitation of ink.



F-2-10

f) Ink supply valve
The ink supply valve is located between the ink tank and ink tube to prevent ink leakage from occurring when the ink tube on the ink tank side is opened during replacement of the ink tank.
The ink supply valve is opened and closed by the valve open/close mechanism which is driven by the valve motor.
The ink tank unit (Left/Right) consist of tank bases each of which contains ink tanks for three colors and the ink tubes for three colors.
The ink supply valve for each color is driven by the valve cam though a link. Ink supply valves for all colors are opened and closed at the same time.

g) Ink passage valve
The sub tank is separated to the two block so that the ink remaining of the sub tank can detect.The ink passage valve connect the two block of the sub tank.
The ink passage valve is opened and closed by the valve open/close mechanism which is driven by the valve motor.


Ink Supply Valve Open/Closed Lever
Ink Supply Valve Open/Closed Detection Sensor
Ink Supply Valve
Ink Supply Valve Cam
Ink Passage Valve Open/Closed Lever
Ink Passage Valve
Ink Passage Valve Open/Closed Detection Sensor
Ink Passage Valve Cam
Valve Motor

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2.3.2.3 Carriage Unit

2.3.2.3.1 Functions of Carriage Unit

iPF750 / iPF755

a) Printhead mounting function
The carriage mechanically locks the printhead and is connected to the printhead via the terminals on the carriage PCB.

b) Control function
The carriage incorporates a carriage PCB that relays the signal from the main controller, a linear encoder that generates a print timing signal based on the detected carriage position, and a multi sensor that detects the media width and skewing to adjust the registration and height.
The carriage PCB and main controller PCB are connected with a flexible cable.

c) Carriage drive function
The carriage motor moves the carriage back and forth on the platen via the carriage belt.

d) Printhead maintenance function
The printer performs the printhead cleaning operation such as printhead wiping and suction at the home position of the carriage.

e) Nozzle check function
The printer detects a non-discharging nozzle using the head management sensor attached to the maintenance jet tray by discharging ink with the carriage stopped at the maintenance jet tray.

f) Media thickness adjustment function
If the gap between the printhead face and the media increases due to the difference in media thickness, cockling, curling, and so on, more ink mist is generated. In reverse, if the gap decreases, the head can touch the media surface more frequently.
To maintain the proper gap, the remote lifter is driven to adjust the head height automatically according to the selected media type, media supply method, printing conditions (borderless/priority print type), environmental conditions (temperature/humidity), and the result of measurement by the multi sensor.
The relationship between media types and head heights (from the platen) is summarized in the table below. Note that the head height is adjusted with priority given to the media gap measured by the multi sensor.

T-2-3

Head height (mm)	**Media type (Value in parentheses:mm)*1**
1.0	(select by the user)
1.3	Photo paper, Synthetic paper, Backlit film
1.8	Plain paper, Coated paper
2	Heavyweight coated paper
2.2	Premiun matte paper, Special
2.6	Special (at the low humidity or high humidity)

*1: Roll media, borderless printing, standard mode excert for line document

g) Paper leading edge detection function/paper width detection function/skewing detection function
The leading edge, width, and skewing of the paper fed to the platen is detected by the multi sensor mounted at the lower left of the carriage.

h) Auto printing position adjustment function
The adjustment pattern printed on paper is read by the multi sensor mounted at the lower left of the carriage, thus adjusting the printing timings of each printhead automatically.

i) Remaining roll media detection function
The amount of the remaining roll paper can be detected using the multi sensor mounted at the lower left of the carriage by printing a barcode at delivery of the roll media.

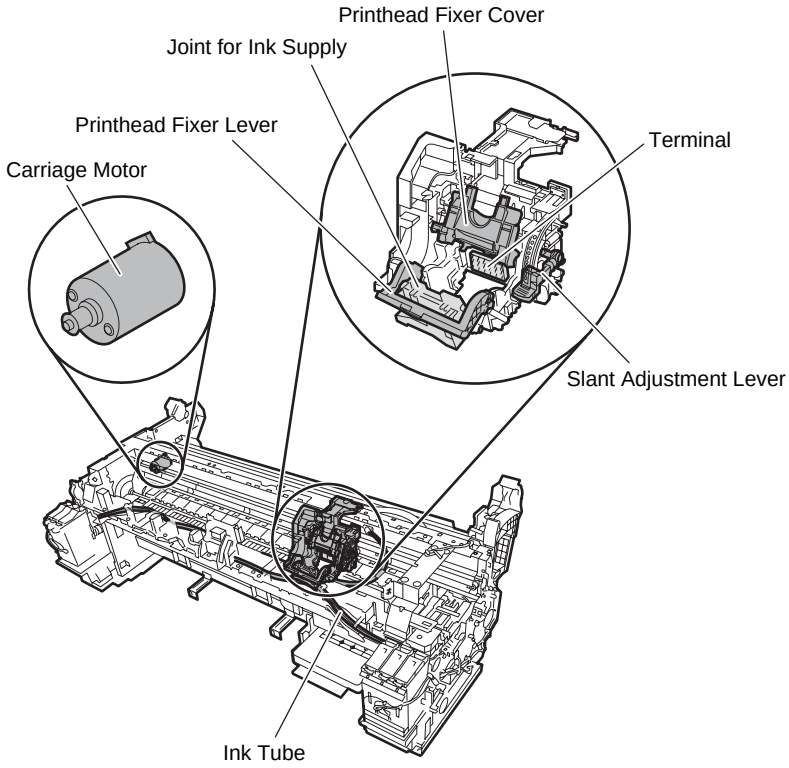
j) Internal temperature detection function
The internal temperature around the printhead is detected using the thermistor mounted on the carriage PCB.

2.3.2.3.2 Structure of Carriage Unit

iPF750 / iPF755

a) Printhead mounting unit
The printhead is secured to the carriage by the printhead fixer lever.
When the printhead is secured to the carriage, the signal contact of the carriage PCB touches the signal contact point of the printhead, allowing print signals to be transmitted.
The ink passage from the ink tank is connected to the printhead through the ink tube and joint.

b) Ink port
Ink is supplied to the printhead via an ink tube, which runs between the tube guides via joints to reach the carriage and follows up is motion.

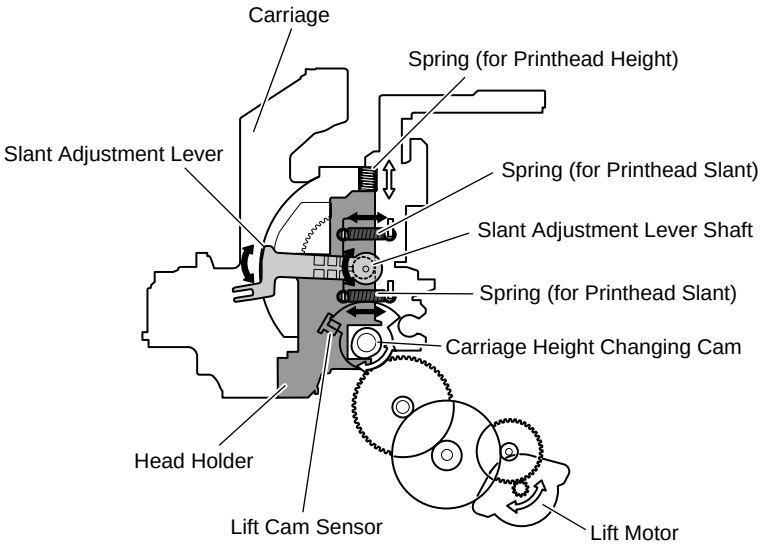


F-2-12

c) Control unit
The carriage PCB is connected to the main controller PCB with a flexible cable. The flexible cable moves in conjunction with the carriage.
A photo-coupler-type encoder is mounted at the top of the rear of the carriage to detect the slit on the linear scale during carriage movement, thus controlling the print timing.

d) Carriage drive
Mechanical misregistrations in the vertical/horizontal and bidirectional print positions of the printhead mounted can be corrected by selecting Adjust Printer from the main menu to shift the print timing.
A DC-operated carriage motor drives the carriage reciprocally on the platen by way of the carriage belt.
The carriage home position, or the capping position, is detected by the sensor flag on the right side of the carriage and the photointerrupter-based carriage HP sensor on the right side of the printer. When the linear scale position is set as a reference home position for use in subsequent position control operations, the carriage motor is driven by a control signal generated from the main controller PCB.

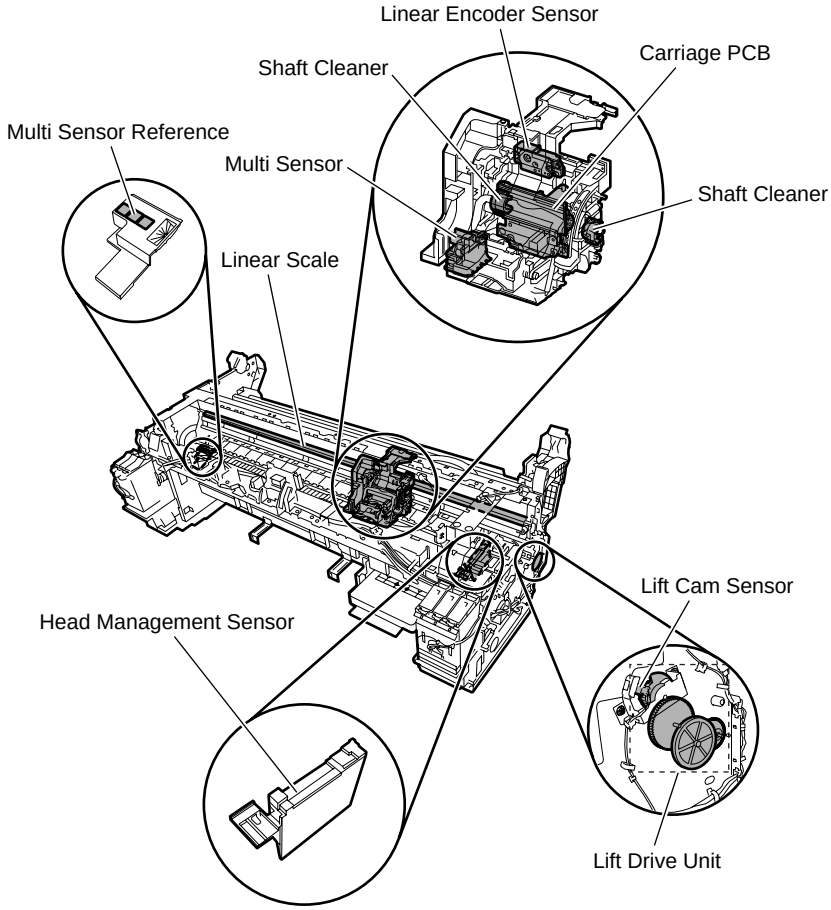
e) Printhead maintenance unit
This printer cleans the printhead with the carriage halted at its home position.
Wiping takes through the rotation of the motor.
Wiper blades mounted on the carriage wipe the printhead while the carriage is halted at its home position.
Wet wiping is carried out for added wiping removal performance, whereby the wiper blades are moistened with glycerin as they are pressed against an absorber impregnated with glycerin.
Maintenance jet ejection is carried out on the cap, at the maintenance jet tray.
A suction operation is carried out by a suction cap in the purge unit.



F-2-13

f) Carriage height adjustment unit
The head height is adjusted with the carriage halted at its home position.
The lift motor is driven to rotate the carriage height changing cam within the carriage, in sync with which the lift cams on both sides of the carriage move the head holder up and down, thereby varying the separation between the face of the printhead and the paper.
The printhead height is detected from the lift cam sensor within the carriage and the distance of rotation of the lift motor.

g) Slant adjustment unit
The tilting of the head is adjusted with the slant adjustment lever.
The point where the slant adjustment lever axis touches the head holder is offset from the fulcrum of the lever axis. Therefore, the printhead is tilted by moving the slant adjustment lever and moving the position on the right side of the head holder back or forward.



F-2-14

h) Multi Sensor
A photo reflective type multi sensor consists of three red LEDs, one red/blue/green LED array, and three light receiving sensors and is used for media end, skew, and width adjustment, registration adjustment, head height adjustment, and print position adjustment.
The multi sensor reference has three white plates attached to it, so that a reference value can be calculated during carriage height measurement by measuring the intensity of light reflected upon the white plates.
(Service mode: SERVICE MODE>ADJUST>GAP CALIB.)

i) Shaft cleaner units
The shaft cleaners mounted at the left and right of the carriage are used to clean the carriage and apply oil to the shaft.

j) Internal temperature detection
A themistor for measuring the internal temperature is mounted on the carriage PCB on the rear of the head holder.

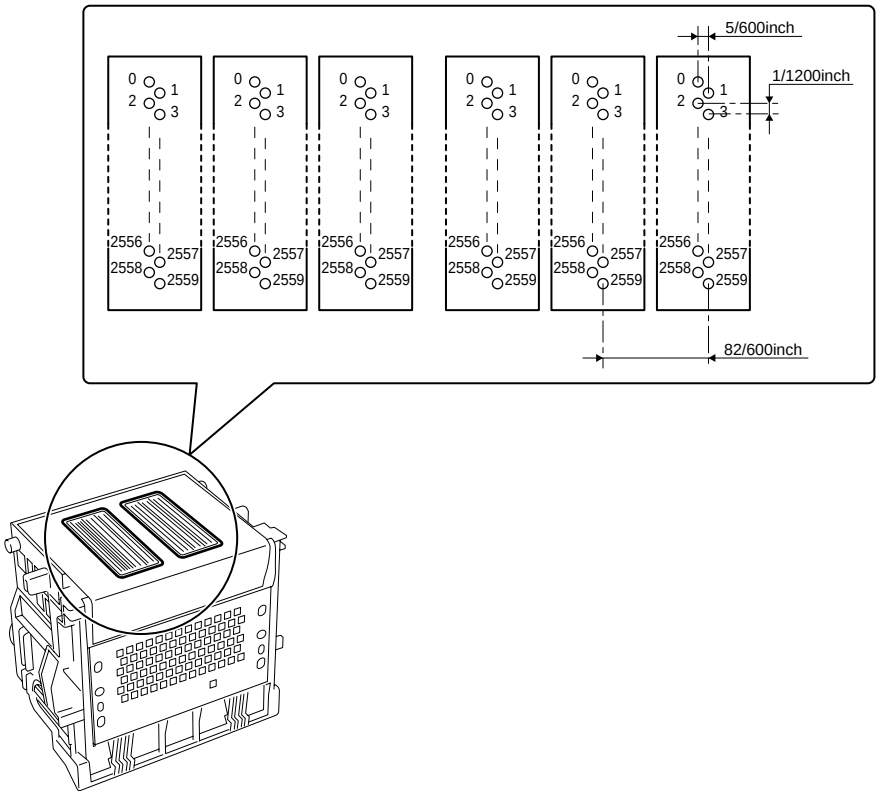
2.3.2.4 Printhead

2.3.2.4.1 Structure of Printhead

iPF750 / iPF755

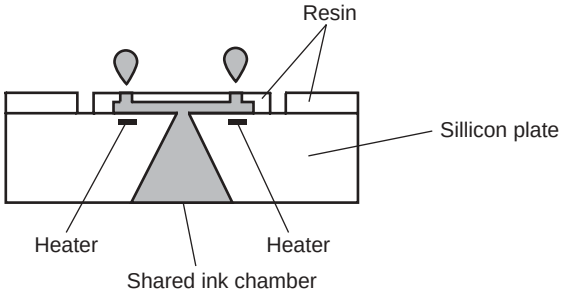
A printhead incorporates six nozzle arrays. Each nozzle can be controlled individually so that a six-color discharge action can be performed by a single printhead.

a) Nozzle arrays
A total of 2560 nozzles are arranged in a two-column staggered pattern.
In each column, 1280 nozzles are arranged in a staggered pattern at intervals of 600 dpi, forming a 2560-nozzle arranged at intervals of 1200 dpi.



F-2-15

b) Nozzle structure
Ink supplied from the ink tank is filtered by a mesh ink filter, and the supplied to the nozzles.
Ink is supplied from the shared ink chamber to the nozzles. When the head driving current is applied to the nozzle heater, ink boils and form bubbles so that ink droplets are discharged from the nozzles.



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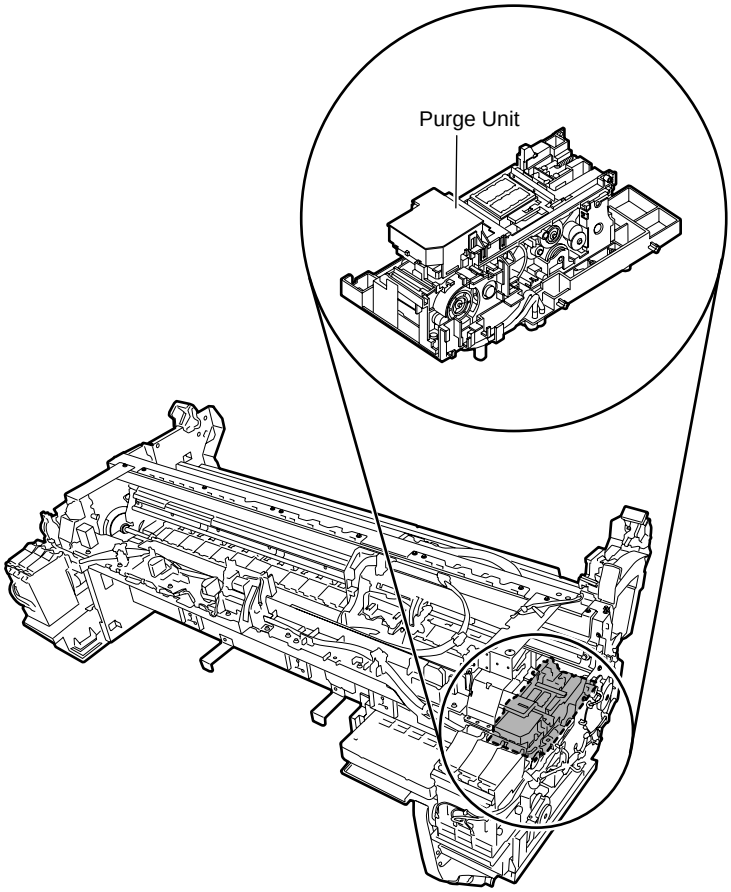
2.3.2.5 Purge Unit

2.3.2.5.1 Functions of Purge Unit

iPF750 / iPF755

To maintain high print quality, the purge unit performs maintenance of the nozzles o the printhead.
The purge unit supports a capping function, cleaning function, and ink supply function.



F-2-17

a) Capping function
The capping function presses the cap of the purge unit against the face plate on the nozzle section of the printhead to prevent nozzle drying and dust adhesion.
Capping is performed when printing is complete, at the start of the suction operation, and when switching to the standby state due to an error.
The capping function also establishes the ink passage between the printhead and purge unit.

b) Cleaning function
The cleaning function restores the printhead to the state where ink can be easily discharged from nozzles. This function includes the following three types of operations.

- Wiping operation
This operation is performed to remove paper fibers and dried ink from to the face plate.

- Pumping operation
This operation is performed to remove ink from the nozzles and fill the nozzles with fresh ink.

- Maintenance jet operation
This operation is performed to spray ink from the nozzles to the cap, maintenance jet ink groove of the platen to remove bubbles in the nozzles and dust and other foreign particles.

c) Ink supply function
The suction pump of the purge unit operates together with the ink supply valve to supply ink to the printhead during the initial filling and ink level adjustment.

Details of the cleaning function are shown in the table below.

T-2-4

Cleaning mode	Name of Service mode or PRINT INF (Name of Main Menu)	Operation	Description of cleaning
Cleaning 1	CLN-A-1/CLN-M-1 (Head Cleaning A)	Normal cleaning	Removes dried ink from nozzles, thick ink accumulated on the face, and paper particles.
Cleaning 2	CLN-A-2	Ink level adjustment and cleaning	Adjust the ink level in the head by suction, and then performs normal cleaning.
Cleaning 3	CLN-A-3	Initial filling ink	Fills the empty tube (during initial installation) with ink, and then performs normal cleaning.
Cleaning 4	CLN-M-4 (Replace P.head)	Ink drainage for head replacement	Drains ink to replace the head (drains only the ink in the head).
Cleaning 5	CLN-M-5 (Move Printer)	Ink drainage for secondary transport	Drains ink from the head and tube for secondary transport.
Cleaning 6	CLN-A-6/CLN-M-6 (Head Cleaning B)	Normal (strong) cleaning	Performs suction stronger than when adjusting the ink filling amount in the head or normal cleaning to unclog nozzles.
Cleaning 7	CLN-A-7	Aging	Performs idle ejection after replacement of the head.
Cleaning 10	CLN-A-10 (Move Printer)	Ink filling after secondary transport	Fills the empty tube (during installation after secondary transport) with ink, and performs normal cleaning.
Cleaning 11	CLN-A-11	Ink filling after head replacement	Performs normal cleaning after head replacement and ink filling.
Cleaning 15	CLN-A-15	Dot count suction	Performs suction to remove ink adhered to dried nozzles and thick ink accumulated on the face when the dot count reaches the prescribed value.
Cleaning 16	CLN-A-16	Precipitated ink agitation	Performs the agitation (ink supply valve open/close) operation to prevent the ink ingredient from precipitating.
Cleaning 17	CLN-A-17	Cleaning (weak)	Performs cleaning weaker than normal cleaning to unclog nozzles.

Cleaning operation timings are as follows.

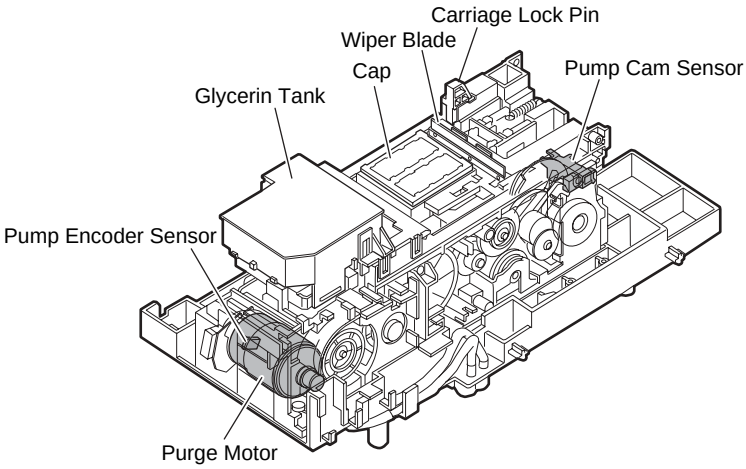
Printer status				Cleaning operation	Consumption (typ.)*1
Standby	168 hours elapsed capped			Cleaning 1 (Normal Cleaning)	1g
	At least 720 to 960 hours elapsed since the last session of Cleaning 2, 3, 6 or 10 (480 hours after initial installation)			Cleaning 6 (Normal (strong) Cleaning)	5g
	At initial installation and 96 hours elapsed since the last session of Cleaning 16			Cleaning 16 (Precipitated ink agitation)	-
	1 hour elapsed capped with a specified number of dots discharged per chip completed after last wiping			Wiping + Idle ejection	0.013g
Power-on	At initial installation			Cleaning 3 (initial filling ink)	40g
	Both heads and inks available	The print operation has completed.	168 to 720 hours elapsed capped	Cleaning 1 (Normal Cleaning)	1g
			At least 720 to 960 hours elapsed since the last session of Cleaning 2, 3, 6 or 10 (360 to 480 hours after initial installation)	Cleaning 6 (Normal (strong) Cleaning)	5g
			At least 960 to 2160 hours elapsed since the last session of Cleaning 2, 3, 6 or 10 (480 hours after initial installation)	Cleaning 2 (Ink level adjustment and cleaning)	10g
			At least 96 hours elapsed since the last session of Cleaning 16	Cleaning 16 (Precipitated ink agitation)	-
			At least 1 hour elapsed capped with a specified number of dots discharged per chip completed after last wiping	Wiping + Idle ejection	0.013g
		Print operation aborted (uncapped) and CR error occurring	Up to 72 hours elapsed after an abort	Cleaning 1 (Normal Cleaning)	1g
			Over 72 hours elapsed after an abort	Cleaning 6 (Normal (strong) Cleaning)	5g
		Print operation aborted (uncapped) and no CR error occurring		Cleaning 11 (ink filling after head replacement)	10g
	No heads are available			Cleaning 10 (ink filling on secondary transport)	40g
Power off	Specified number of dots discharged per chip completed since the last session of wiping			Wiping + Idle ejection	0.013g
Before the start of printing	Less than 168 hours elapsed capped			Idle ejection	0.013g
	At least 168 hours elapsed capped			Cleaning 1 (Normal Cleaning)	1g
	Before printing in the wake of an error occurrence			Cleaning 1 (Normal Cleaning)	1g
Printing	Before scanning while printing			Idle ejection (+Wiping)	- (0.013g)
After the end of printing	A specified number of dots (color) discharged per chip since the last session of Cleaning 2, 3, 6 or 1			Cleaning 6 (Normal (strong) Cleaning)	5g
	A specified number of dots discharged per chip after the last session of wiping			Wiping + Idle ejection	0.013g
	3 minutes elapsed since the last session of capping			Wiping + Idle ejection	0.013g
	Total 2 hours elapsed uncapped since the last session of Cleaning 1, 2, 3, 6 or 10			Cleaning 1 (Normal Cleaning)	1g
When the Head Cleaning menu choice is executed	Manual Cleaning (Head Cleaning A)			Cleaning 1 (Normal Cleaning)	1g
	Manual cleaning (Head cleaning B)			Cleaning 6 (Normal (strong) Cleaning)	5g
When the Replace Printhead menu choice is executed	After head replacement			Cleaning 2 (ink level adjustment and cleaning) + Cleaning 4 (ink drainage for head replacement)	10g
When the Move Printer menu choice is executed	After the Move Printer menu choice is executed			Cleaning 5 (ink drainage for secondary transport)	10g
	After power-on at secondary installation			After power-on at secondary installation	15g

*1: Quantities of ink consumption by nozzle train

2.3.2.5.2 Structure of Purge Unit

iPF750 / iPF755

a) Cap unit
The cap unit is used to cap the printhead nozzles during capping and cleaning. The portion that touches the face plate is made from rubber. Two caps are arranged for the printhead (six arrays of nozzles) installed in the carriage.
During cleaning, the caps used for both suction and capping are used to suck ink from the printhead using the suction pump.
During capping, the caps are raised by the cap cams operated by the purge motor to cover the arrays when the carriage has moved to the home position, thus protecting the nozzles.



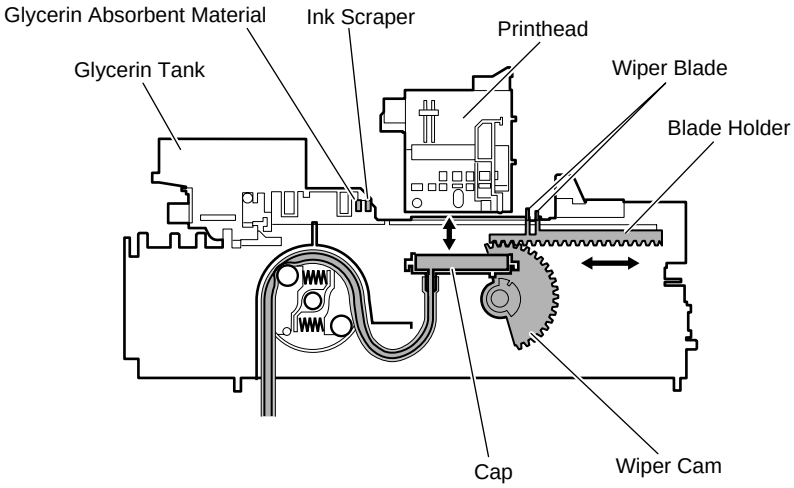
F-2-18

b) Wiper unit

The wiper unit operated by the purge motor wipes the printhead face.
The printer is provided with a pair of wiper blades for better wiping performance.
The wiping operation is performed by a "slide wipe" method by which the purge motor rotates (in the normal direction) to slide the wiper blade via the wiper cam. It is performed by a constant-speed movement toward the front of the printer as viewed from the printer front.
The wiper blade, which is positioned at right angles to the printhead, wipes the entire printhead face, and then the narrow blade is used to wipe the nozzle arrays.
After wiping, the wipe blades are cleaned before they are set at the wiping position so that the maximum wiping performance is obtained.
During the wiper blade cleaning, the ink removed form the head is rubbed off by the in scraper.
Absorbent material soaked with glycerin is pressed against the wiper blades to enhance the wiping performance. The amount of glycerin used (tank capacity: 50 ml) is managed by counting the number of times the wiper blade is pressed against the absorbent material. When the count reaches the following value, an advance notice of replacement (printing can be continued) or a request for replacement (service call error) is displayed.

T-2-5

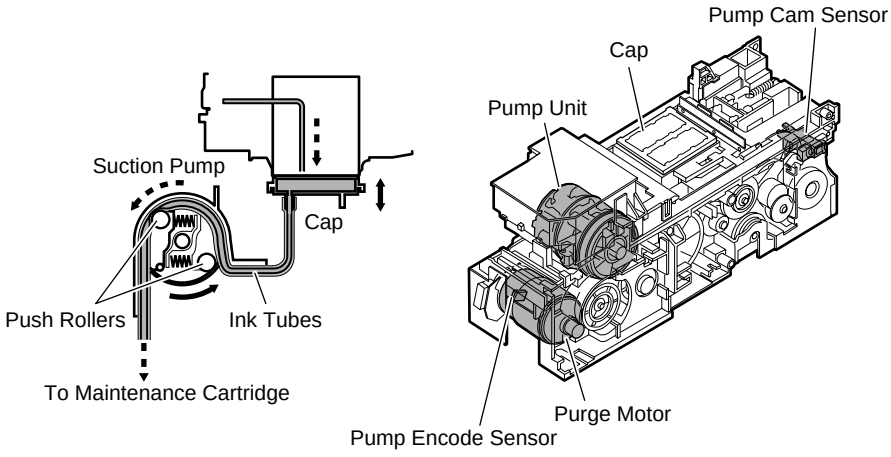
Advance notice of replacement	47,500times
Service call	50,000times



F-2-19

c) Pump unit

This printer uses tube pumps (suction pumps) that press on the ink tubes using rollers to produce negative pressure, thus sucking ink.
Two rollers are used to press on a single tube one after another to control the amount of ink sucked.
The roller rotation timing is detected by the pump cam sensor, and the amount of rotation is controlled by the driving of the purge motor.



F-2-20

2.3.2.6 Maintenance Cartridge

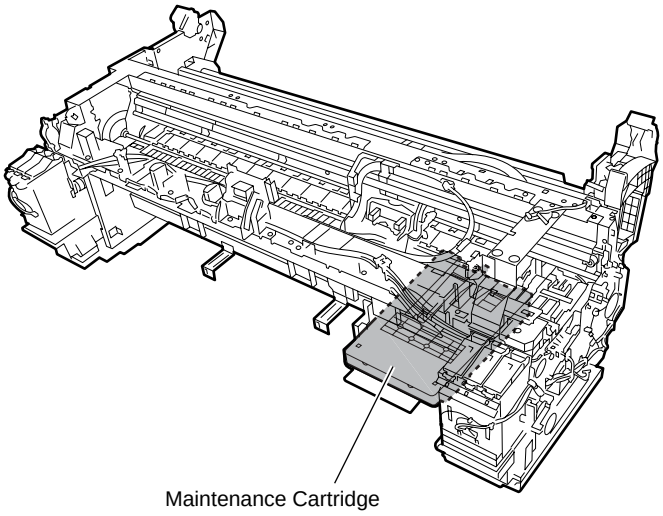
2.3.2.6.1 Maintenance Cartridge

iPF750 / iPF755

a) Maintenance cartridge
The maintenance cartridge holds as much about 893 ml (part of MBK (pigment) ink: 210 ml/part of dye ink: 683 ml) of used inks.

b) Used maintenance cartridge ink detection
Used maintenance cartridge ink detection is monitored with regard to a dot count.
When the quantity of the used ink reaches about 800 ml (80% of the cartridge capacity), the warning message "Check maint cartridge capacity" is displayed to tell that the maintenance cartridge is nearly full.
Printing may continue even when the warning message is displayed.
When the quantity of the used ink reaches about 893 ml (100% of the cartridge capacity), a replacement prompt error message is displayed, telling that the maintenance cartridge is full.
When the printer determines that the maintenance cartridge is full, it shuts down even while it is printing.
The printer will remain inoperable until the maintenance cartridge is replaced.

Memo:
The maintenance cartridge houses EEPROM, so that main controller PCB can control the status of the maintenance cartridge by writing to and reading from the EEPROM content.
There is no need to initialize the counter information, therefore, when the maintenance cartridge is replaced.



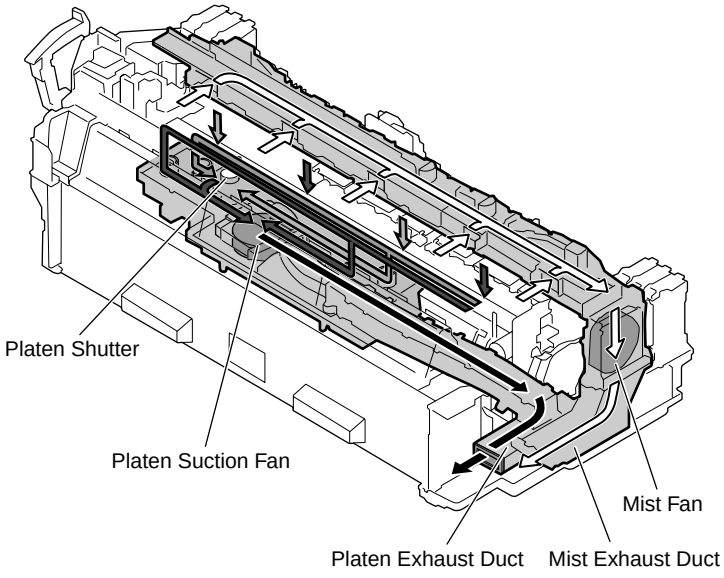
F-2-21

2.3.2.7 Air Flow

2.3.2.7.1 Air Flow

iPF750 / iPF755

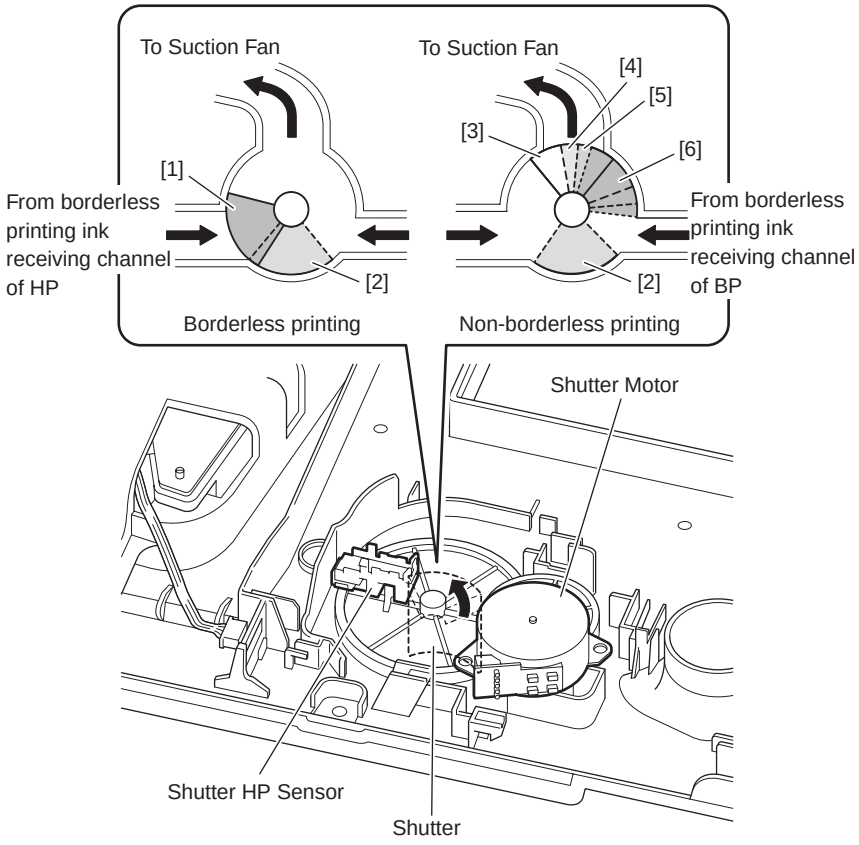
This printer is equipped with a mist fan to collect the ink mist and a suction fan to suck the media to the platen.
The ink floating in air or spattered from the media during printing passes through the suction port because of the air flow inside the printer and is collected inside the mist fan and mist exhaust duct.
There is a duct below the platen and the ink mist in the duct is collected in the platen suction duct by the platen suction fan.



F-2-22

There are two ducts below the platen and each is connected to the platen suction fan. One comes from the borderless printing ink receiving grooves and the other comes from the suction port.
The duct from the borderless printing ink receiving grooves has a shutter unit in front of the platen suction fan. This controls the suction pressure from the borderless printing ink receiving grooves according to the paper size and number of print passes with the shutter opening amount of the shutter unit in order to prevent ink flowing and smearing at the edge of paper during borderless printing.

The shutter position (opening) is detected by the shutter HP sensor and the rotation of the shutter motor.
The shutter is controlled at the following six positions.



F-2-23

T-2-6

Shutter position	Shutter opening	During borderless printing	During non-bordered printing
[1]	Only HP side open	Yes (17 inch or shorter media)	
[2]	Fully open	Yes (B2 or larger media)	Yes
[3]	Fully close		Yes
[4]	1/4 open		Yes
[5]	1/2 open		Yes
[6]	3/4 open		Yes

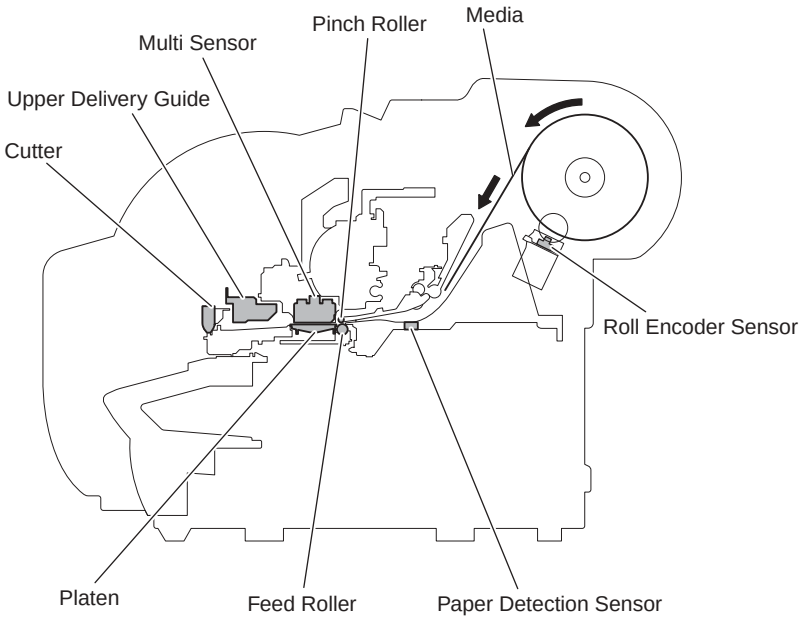
2.3.3 Paper Path

2.3.3.1 Outline

2.3.3.1.1 Overview of Paper Path

iPF750 / iPF755

The paper pass comprises an roll unit, a feed roller, a pinch roller pressure drive unit that pressurizes and depressurizes the pinch roller, a roll holder drive unit that drives the roll holder and sensors that detect the transport status of paper to feed paper in one way, and transport and eject the paper.

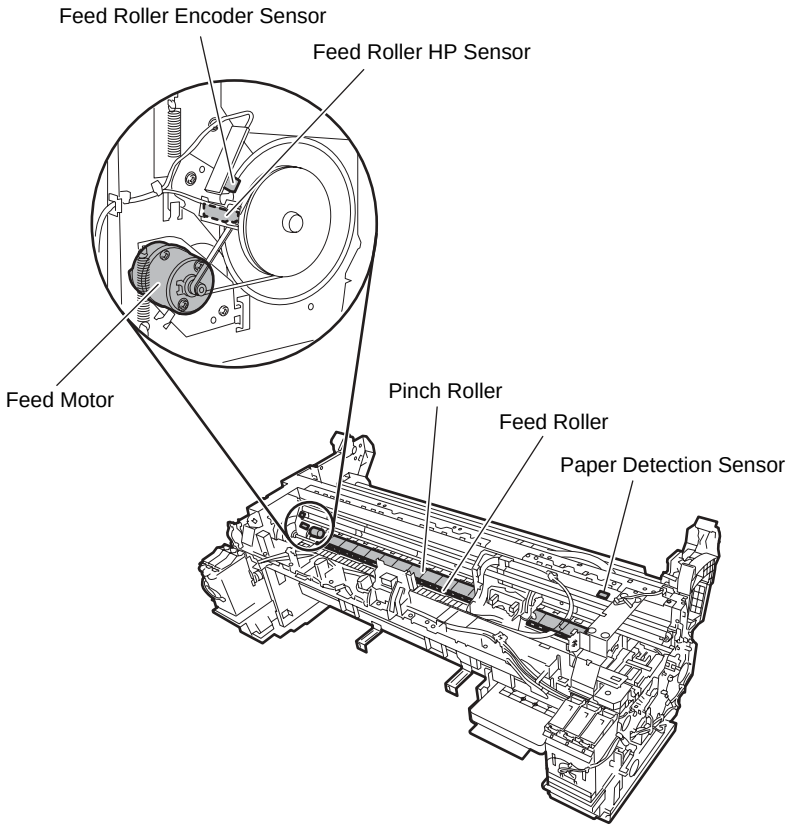


F-2-24

2.3.3.2 Paper Path

2.3.3.2.1 Structure of Feed Roller Unit

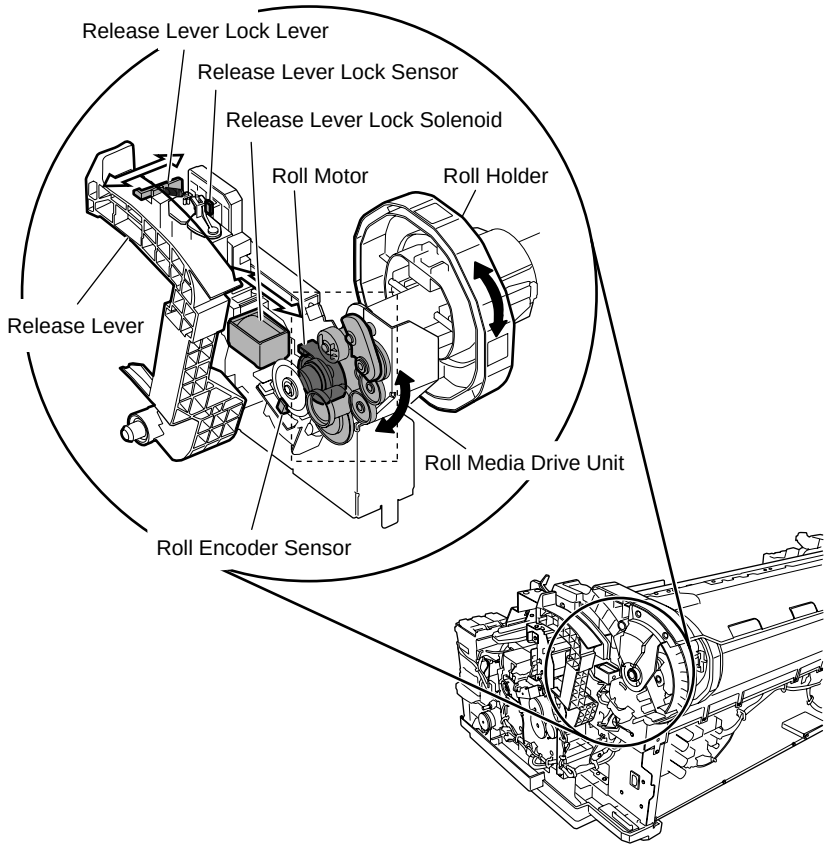
iPF750 / iPF755



F-2-25

a) Feed roller Unit
The feed roller unit consists of media feeding mechanisms such as feed rollers driven by the feed motor and the pinch roller unit operating in conjunction with the feed rollers.
While being held flat on the platen, media is fed horizontally under the printhead.

b) Detection Unit
The feed roller unit has a sensor that detects the media feed status and a sensor that detects the status of the mechanisms that constitute the paper path.



F-2-26

c) Roll media drive unit
The paper feed unit has a roll media drive unit to prevent sagging and skewing of media when feeding a roll media. The roll media drive unit feeds/rewinds the roll media by rotating the roll holder with the forward/reverse rotation of the roll motor.
The roll encoder sensor of the roll media drive unit detects the rotation of the roll holder during roll media feed, and assumes the end of roll media is reached when the roll holder stops rotating.

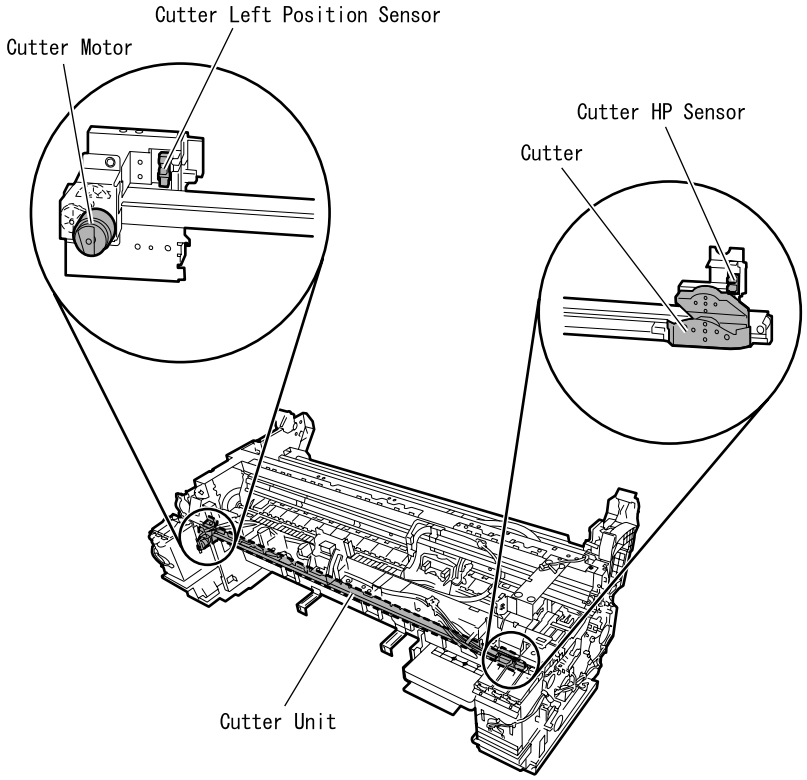
d) Release lever unit
The release lever is used to release the pinch roller pressure when setting the media or fixing jam.
The release lever lock solenoid turns ON and locks the release lever with the release lever lock lever so that the pinch roller pressure cannot be released while printing.
The release lever lock status is detected with the release lever lock sensor.

2.3.3.3 Cutter Unit

2.3.3.3.1 Structure of Cutter Unit

iPF750 / iPF755

When a roll media is used, the cutter unit cuts the leading end of the roll on loading and also cuts the roller on paper ejection. Whether cutting takes place or not depends on the relevant printer driver setting in the main menu.
The cutter in the cutter unit stands by at the cutter home position, except when a roll media is cut. Power imparted from the cutter motor to the cutter via a circular belt drives it to travel from right to left for cutting.



F-2-27

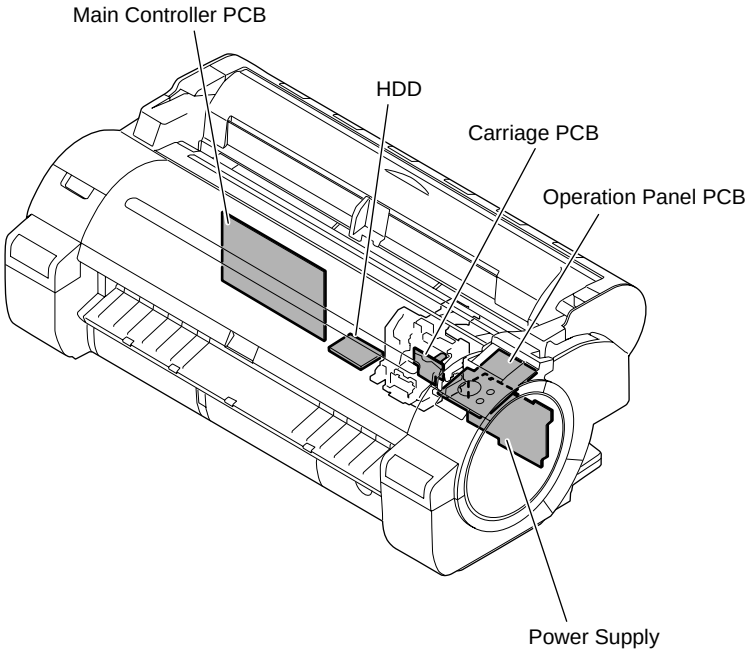
2.4 Printer Electrical System

2.4.1 Outline

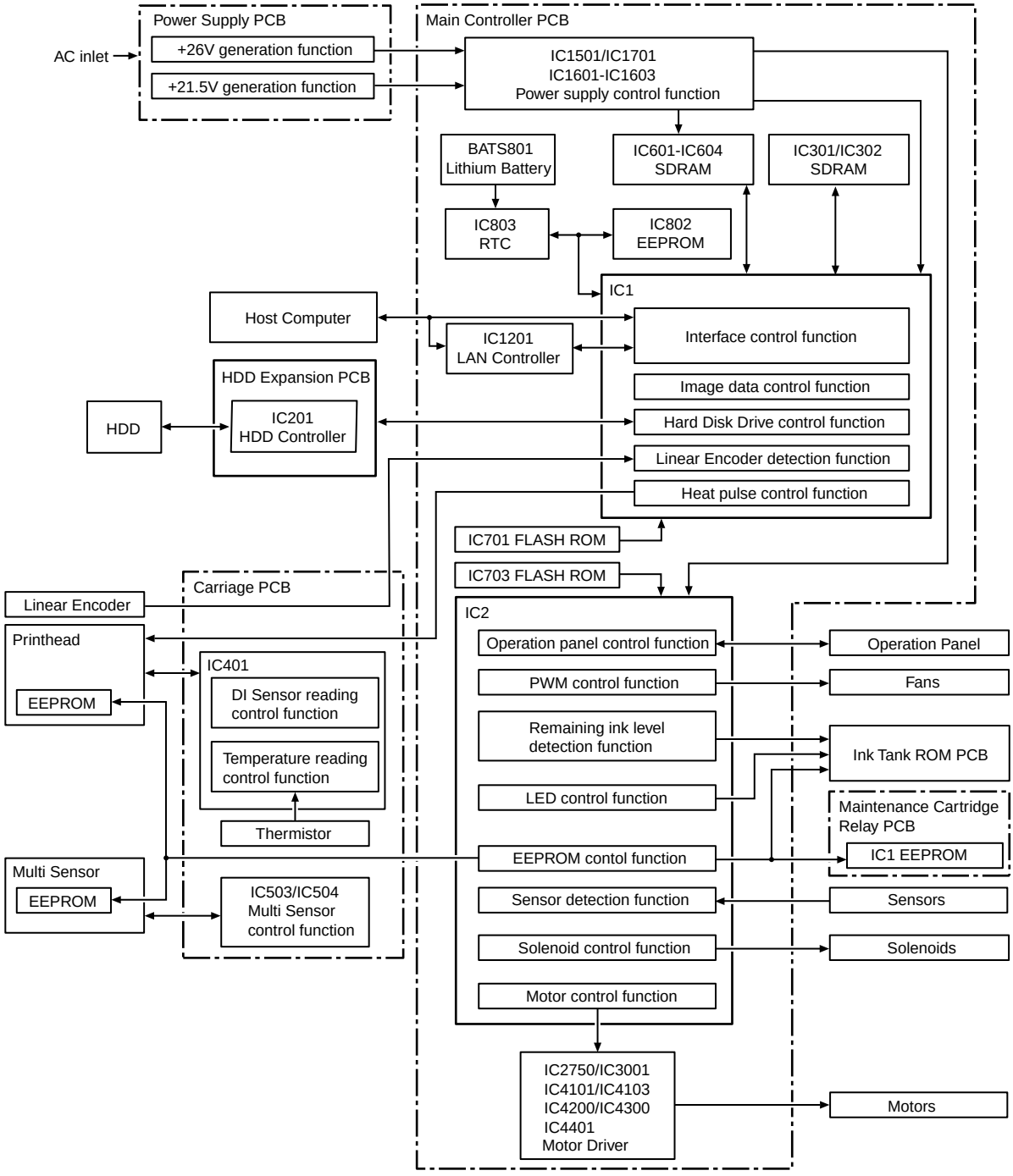
2.4.1.1 Overview

iPF755

The printer electrical system consists of the main controller PCB and power supply PCB and HDD which are mounted on the rear side of the printer, the carriage PCB and printhead which are mounted in the carriage, and other electrical components such as the operation panel, sensors, and motors.
The main controller PCB manages the image data processing and the entire electrical system, and controls relay PCBs and driver functions.



F-2-28

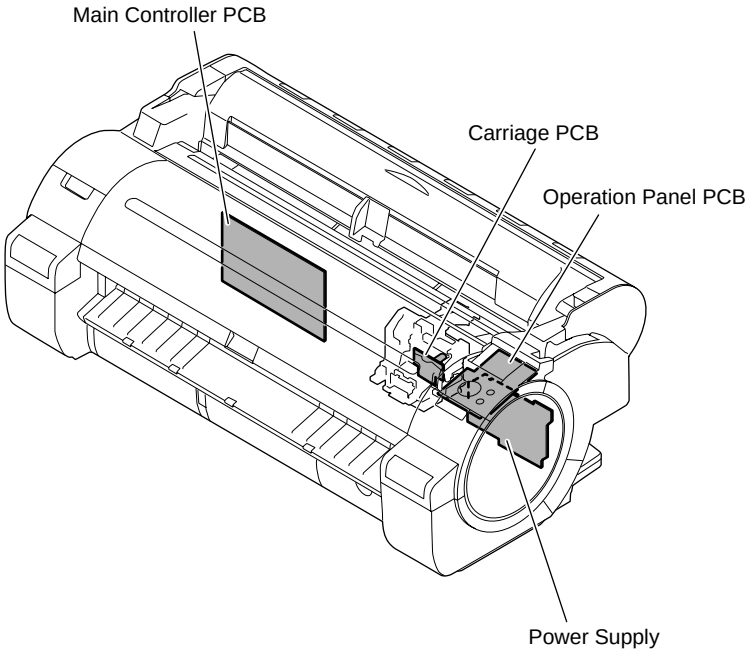

Power Supply PCB
AC inlet
+26V generation function
+21.5V generation function
Main Controller PCB
IC1501/IC1701
IC1601-IC1603
Power supply control function
BATS801
Lithium Battery
IC601-IC604
SDRAM
IC301/IC302
SDRAM
IC803
RTC
IC802
EEPROM
IC1
Host Computer
IC1201
LAN Controller
Interface control function
HDD Expansion PCB
Image data control function
HDD
IC201
HDD Controller
Hard Disk Drive control function
Linear Encoder detection function
Heat pulse control function
IC701 FLASH ROM
IC703 FLASH ROM
Carriage PCB
Linear Encoder
IC2
Printhead
Operation panel control function
Operation Panel
IC401
PWM control function
Fans
EEPROM
DI Sensor reading
control function
Remaining ink level
detection function
Ink Tank ROM PCB
Temperature reading
control function
LED control function
Maintenance Cartridge
Relay PCB
Thermistor
IC1 EEPROM
Multi Sensor
EEPROM
EEPROM contol function
IC503/IC504
Multi Sensor
control function
Sensor detection function
Sensors
Solenoid control function
Solenoids
Motor control function
IC2750/IC3001
IC4101/IC4103
IC4200/IC4300
IC4401
Motor Driver
Motors

F-2-29

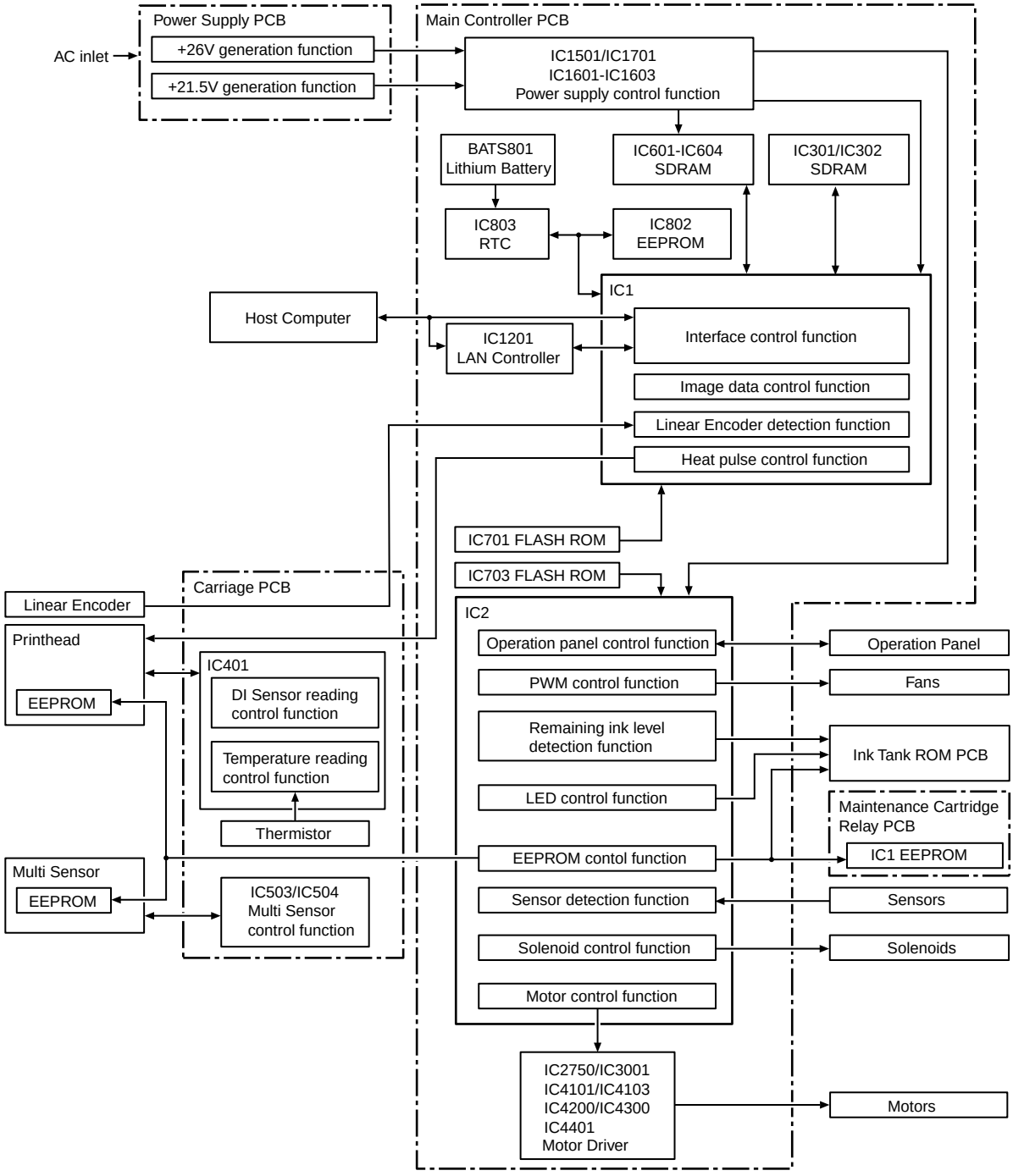
2.4.1.2 Overview

iPF750

The printer electrical system consists of the main controller PCB and power supply PCB which are mounted on the rear side of the printer, the carriage PCB and printhead which are mounted in the carriage, and other electrical components such as the operation panel, sensors, and motors.
The main controller PCB manages the image data processing and the entire electrical system, and controls relay PCBs and driver functions.



F-2-30

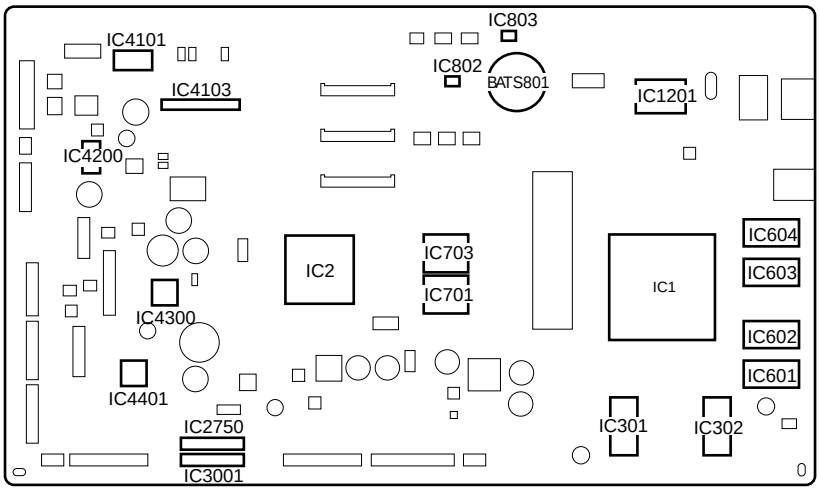

Power Supply PCB
AC inlet
+26V generation function
+21.5V generation function
Main Controller PCB
IC1501/IC1701
IC1601-IC1603
Power supply control function
BATS801
Lithium Battery
IC601-IC604
SDRAM
IC301/IC302
SDRAM
IC803
RTC
IC802
EEPROM
IC1
Host Computer
IC1201
LAN Controller
Interface control function
Image data control function
Linear Encoder detection function
Heat pulse control function
IC701 FLASH ROM
IC703 FLASH ROM
Carriage PCB
Linear Encoder
Printhead
EEPROM
IC401
DI Sensor reading
control function
Temperature reading
control function
Thermistor
Multi Sensor
EEPROM
IC503/IC504
Multi Sensor
control function
IC2
Operation panel control function
Operation Panel
PWM control function
Fans
Remaining ink level
detection function
Ink Tank ROM PCB
LED control function
Maintenance Cartridge
Relay PCB
IC1 EEPROM
EEPROM contol function
Sensor detection function
Sensors
Solenoid control function
Solenoids
Motor control function
IC2750/IC3001
IC4101/IC4103
IC4200/IC4300
IC4401
Motor Driver
Motors

F-2-31

2.4.2 Main Controller

2.4.2.1 Main controller PCB components

iPF755



F-2-32

a) ASIC (IC1/IC2)
The ASIC (IC1/IC2) with a 32/16-bit internal bus is driven in sync with the 165/66 MHz external clock. It supports the following functions:

Image processing unit
This unit converts the RGB multi-value image data or CMYK multi-value data received from the host computer through the interface connector to the binary image data for the ink colors used.

DMA controller
This controller control DMA transfer of the data transferred through the input interfaces such as the USB and expansion card slot as well as DMA transfer of the data stored in the DIMM.

Image data generation/output function
This function generates image data for color printing from the received image data and the mask pattern (corresponding to print mode) stored in the FLASH ROM, and stored the generated image data in DIMM. It also outputs the generated image data to the carriage PCB.

Interrupt controller
This controller receives and processes internal interrupts and external interrupts from the USB, image processing unit, and expansion card slot.

Timer function
Even when the printer is turned off, the timer function is held on using the RTC(IC803) and lithium battery(BATS801) to assist the cleaning function.
When the power cord is plugged to the outlet, power is supplied to the RTC and therefore the lithium battery power is not consumed.

Heat Enable signal control function
This function uses the pulse width to perform variable control of the time of application of the Heat Enable signal to the nozzle heater board for each printhead nozzle array.

Linear scale count function
This function reads the linear scale when the carriage moves, thus generating the ink discharge timing. It also counts the linear scale timing cycle using the reference clock to measure the carriage moving speed.

Dot count function
This function controls the discharge dots used as the information for Heat Enable signal control, maintenance jet control, cleaning control, and remaining ink level for each nozzle array.

Operation panel control function
This function controls serial communication with the operation panel.

PWM control function
This function controls driving of the suction fan and mist fan as well as the temperature of the printhead.

Remaining ink level detection function
This function detects the remaining level of each color of ink based on the signal received from the hollow needle mounted in the ink tank unit.

LED control function
This function controls the LEDs on the ink tank unit.

I/O port function
This function controls input signals from sensors.

Power ON/OFF control function
This function controls turning on/off of the drive power (26 V and 21.5 V) supplied from the power supply PCB.

Head DI sensor read control function
This function controls read operation by the head DI sensor.

Multi sensor control function
This function controls the LED, adjusts the gain, and controls obtainment of the reading for the multi sensor.

EEPROM control function
This function controls the EEPROMs of individual ink tanks, the maintenance cartridge EEPROM, the EEPROM on the maintenance cartridge relay PCB, and the

head EEPROM in addition to the on-board EEPROM.

Motor control function
This function controls the carriage motor, feed motor, valve motor (L)/(R), shutter motor, purge motor, lift motor, roll motor and cutter motor based on the input signals from sensors.

HDD control function
This function controls the hard disk drive.

b) Driver IC (IC4101/4103)
This IC generates a carriage motor control signal based on the control signal from the ASIC.

c) Driver IC (IC4200)
This IC generates a feed motor control signal based on the control signal from the ASIC.

d) Driver IC (IC4300)
This IC generates purge motor and cutter motor control signals based on the control signal from the ASIC.

e) Driver IC (IC4401)
This IC generates roll motor and valve motor (L)/(R) control signals based on the control signal from the ASIC.

f) Driver IC (IC2750)
This IC generates a shutter motor control signal based on the control signal from the ASIC.

g) Driver IC (IC3001)
This IC generates a lift motor control signal based on the control signal from the ASIC.

h) DIMMs (IC301, IC302, IC601, IC602, IC603, IC604)
The DIMM comprising a 512-MB DDR-SDRAM (IC301/IC302) and 256-MB SDR-SDRAM (IC601/IC602/IC603/IC604) is connected to the 32-bit data bus to be used as a work area.
During print data reception, it is also used as an image buffer.
It cannot be expanded.

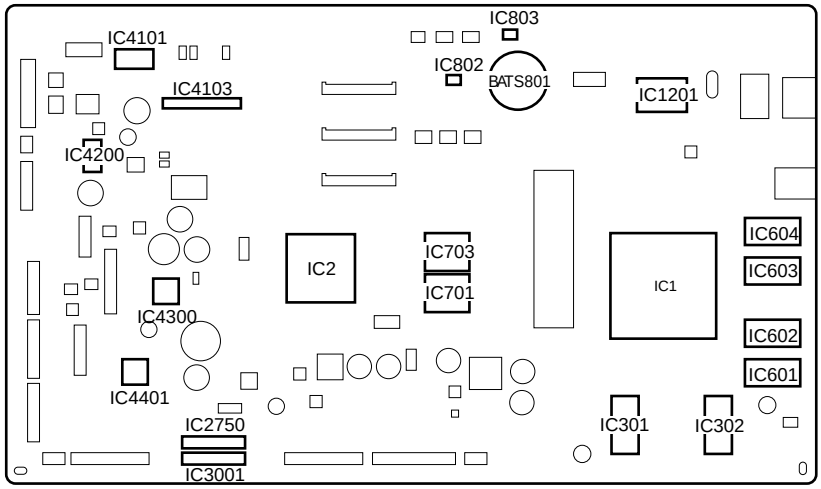
i) FLASH ROM (IC701/IC703)
A 128-MB/64-MB flash ROM (IC701/IC703) is connected to the 8-bit data bus to store the printer control program.

j) EEPROM (IC802)
The 256-KB EEPROM stores various setting values, adjustment values, log data, counter values related to the user/servicing.

MEMO:
After replacement of the main controller PCB, the printer must be started up in the service mode to take over the setting and adjustment values to the new PCB properly (the service mode will be switched to the PCB replacement mode automatically).

2.4.2.2 Main controller PCB components

iPF750



F-2-33

a) ASIC (IC1/IC2)
The ASIC (IC1/IC2) with a 32/16-bit internal bus is driven in sync with the 165/66 MHz external clock. It supports the following functions:

Image processing unit
This unit converts the RGB multi-value image data or CMYK multi-value data received from the host computer through the interface connector to the binary image data for the ink colors used.

DMA controller
This controller control DMA transfer of the data transferred through the input interfaces such as the USB and expansion card slot as well as DMA transfer of the data stored in the DIMM.

Image data generation/output function
This function generates image data for color printing from the received image data and the mask pattern (corresponding to print mode) stored in the FLASH ROM, and stored the generated image data in DIMM. It also outputs the generated image data to the carriage PCB.

Interrupt controller
This controller receives and processes internal interrupts and external interrupts from the USB, image processing unit, and expansion card slot.

Timer function
Even when the printer is turned off, the timer function is held on using the RTC(IC803) and lithium battery(BATS801) to assist the cleaning function.
When the power cord is plugged to the outlet, power is supplied to the RTC and therefore the lithium battery power is not consumed.

Heat Enable signal control function
This function uses the pulse width to perform variable control of the time of application of the Heat Enable signal to the nozzle heater board for each printhead nozzle array.

Linear scale count function
This function reads the linear scale when the carriage moves, thus generating the ink discharge timing. It also counts the linear scale timing cycle using the reference clock to measure the carriage moving speed.

Dot count function
This function controls the discharge dots used as the information for Heat Enable signal control, maintenance jet control, cleaning control, and remaining ink level for each nozzle array.

Operation panel control function
This function controls serial communication with the operation panel.

PWM control function
This function controls driving of the suction fan and mist fan as well as the temperature of the printhead.

Remaining ink level detection function
This function detects the remaining level of each color of ink based on the signal received from the hollow needle mounted in the ink tank unit.

LED control function
This function controls the LEDs on the ink tank unit.

I/O port function
This function controls input signals from sensors.

Power ON/OFF control function
This function controls turning on/off of the drive power (26 V and 21.5 V) supplied from the power supply PCB.

Head DI sensor read control function
This function controls read operation by the head DI sensor.

Multi sensor control function
This function controls the LED, adjusts the gain, and controls obtainment of the reading for the multi sensor.

EEPROM control function
This function controls the EEPROMs of individual ink tanks, the maintenance cartridge EEPROM, the EEPROM on the maintenance cartridge relay PCB, and the head EEPROM in addition to the on-board EEPROM.

Motor control function
This function controls the carriage motor, feed motor, valve motor (L)/(R), shutter motor, purge motor, lift motor, roll motor and cutter motor based on the input signals from sensors.

b) Driver IC (IC4101/4103)
This IC generates a carriage motor control signal based on the control signal from the ASIC.

c) Driver IC (IC4200)
This IC generates a feed motor control signal based on the control signal from the ASIC.

d) Driver IC (IC4300)
This IC generates purge motor and cutter motor control signals based on the control signal from the ASIC.

e) Driver IC (IC4401)
This IC generates roll motor and valve motor (L)/(R) control signals based on the control signal from the ASIC.

f) Driver IC (IC2750)
This IC generates a shutter motor control signal based on the control signal from the ASIC.

g) Driver IC (IC3001)
This IC generates a lift motor control signal based on the control signal from the ASIC.

h) DIMMs (IC301, IC302, IC601, IC602, IC603, IC604)
The DIMM comprising a 512-MB DDR-SDRAM (IC301/IC302) and 256-MB SDR-SDRAM (IC601/IC602/IC603/IC604) is connected to the 32-bit data bus to be used as a work area.
During print data reception, it is also used as an image buffer.
It cannot be expanded.

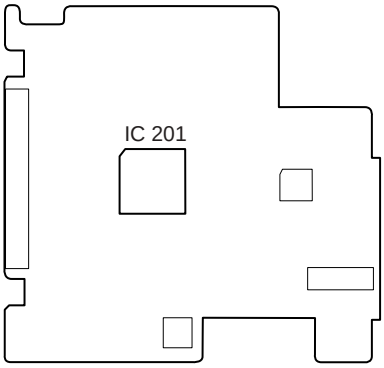
i) FLASH ROM (IC701/IC703)
A 128-MB/64-MB flash ROM (IC701/IC703) is connected to the 8-bit data bus to store the printer control program.

j) EEPROM (IC802)
The 256-KB EEPROM stores various setting values, adjustment values, log data, counter values related to the user/servicing.

MEMO:
After replacement of the main controller PCB, the printer must be started up in the service mode to take over the setting and adjustment values to the new PCB properly (the service mode will be switched to the PCB replacement mode automatically).

2.4.2.3 HDD expansion PCB components

iPF755



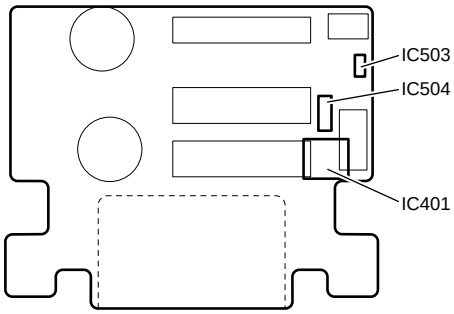
F-2-34

a) HDD controller IC (IC201)
This controller control the hard disk drive.

2.4.3 Carriage Relay PCB

2.4.3.1 Carriage PCB components

iPF750 / iPF755



F-2-35

a) Latch ICs (IC401)

DI sensor reading control function
This function obtains the DI sensor value in the printhead and head rank for each color and sends it to the main controller PCB based on the control signals from the main controller.

Environmental temperature reading control
This function sends the environmental temperature detected by the thermistor on the board based t the main controller PCB based on the control signals from the main controller PCB.

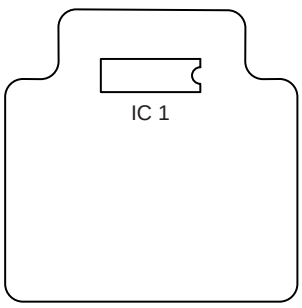
Image data relay function
This function relays the image data from the main controller PCB to the printhead.
The function for processing image data is not supported.

b) Multi sensor control ICs (IC503 and IC504)
These ICs are used to generate the multi sensor LED control signal and adjust the gain.

2.4.4 Maintenance Cartridge Relay PCB

2.4.4.1 Maintenance cartridge relay PCB components

iPF750 / iPF755



F-2-36

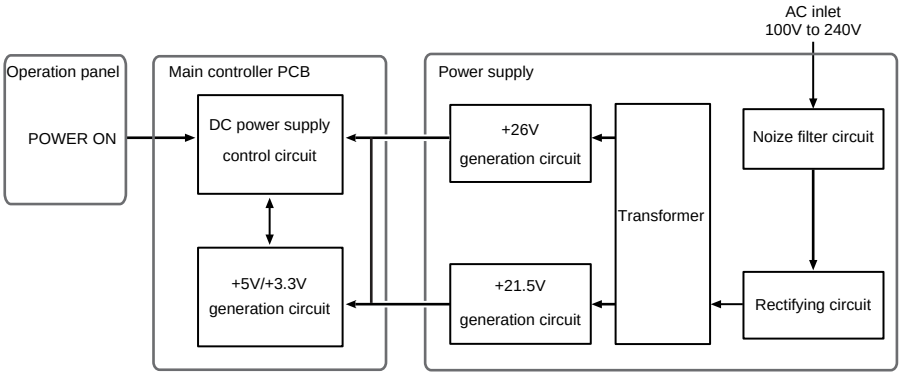
a) EEPROM (IC1)

The 256-KB EEPROM stores all information written to the EEPROM on the main controller PCB.

2.4.5 Power Supply

2.4.5.1 Power supply block diagram

iPF750 / iPF755



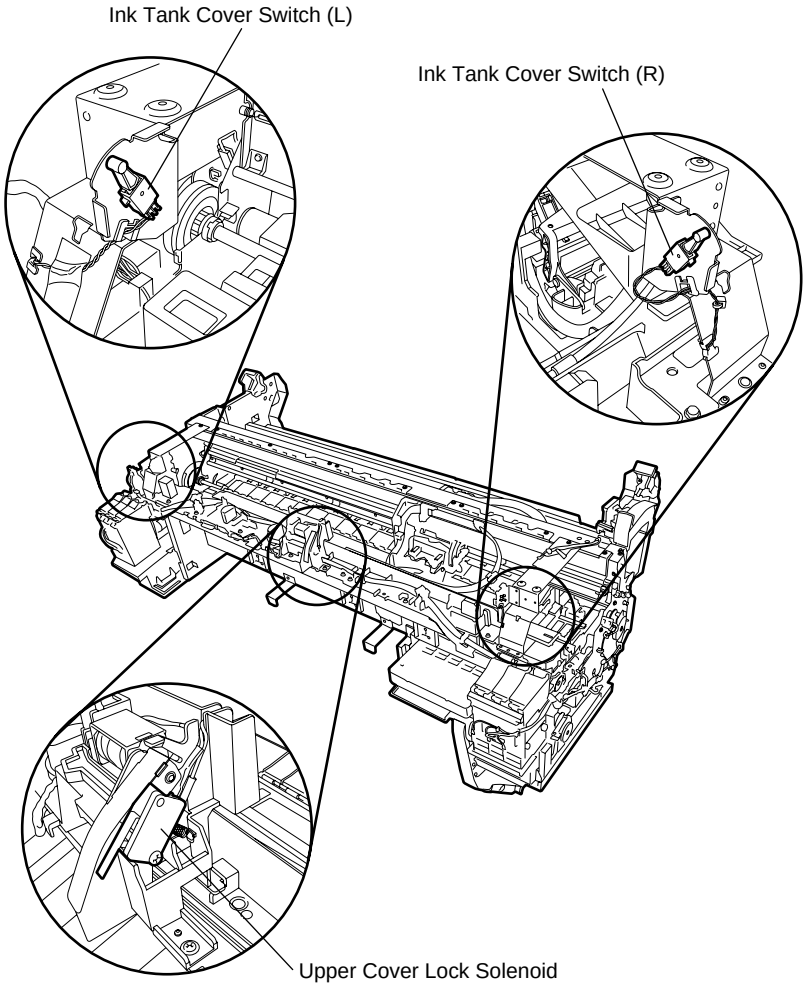
F-2-37

The power supply converts AC voltages ranging from 100 V to 240 V from the AC inlet to DC voltages for driving the ICs, motor, and others.
The voltage generator circuits include the +26 V generation circuit for driving motors, fans, and sensors and a +21.5 V generator circuit for driving sensors, heads, logic circuits, and others.
When the power is turned off, +26 V and +21.5 V are reduced to about 12 V and 9 V respectively (power save mode).
Power ON/OFF operation is controlled by the main controller PCB.

2.5 Detection Functions with Sensors

2.5.1 Sensors for covers

iPF750 / iPF755



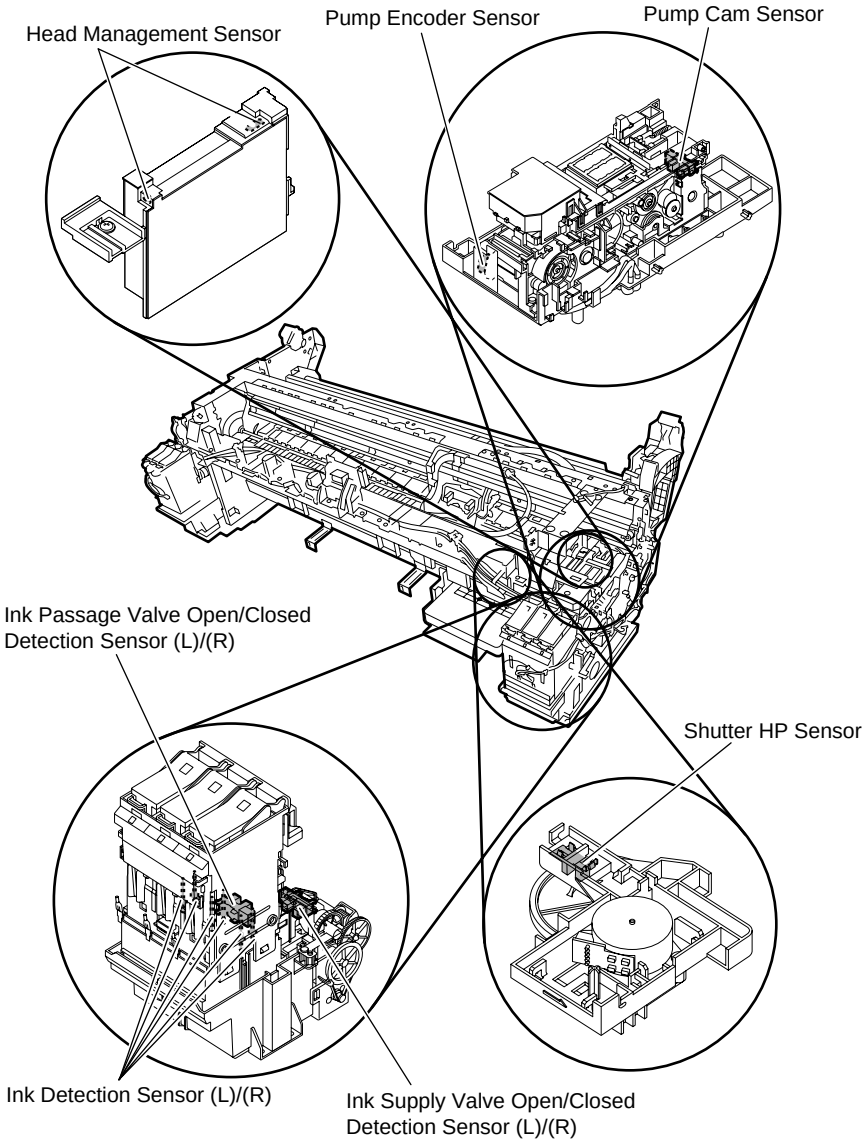
F-2-38

Upper cover lock switch
The microswitch-based upper cover lock switch detects the open/closed states of the upper cover.
When the upper cover close, the switch is pressed to detect the closed state of the upper cover.

Ink tank cover switch (L)/(R)
The microswitch-based ink tank cover switches detect the open/closed states of left and right ink tank cover.
When an ink tank cover closes, the switch is pressed to detect the closed state of the ink tank cover.

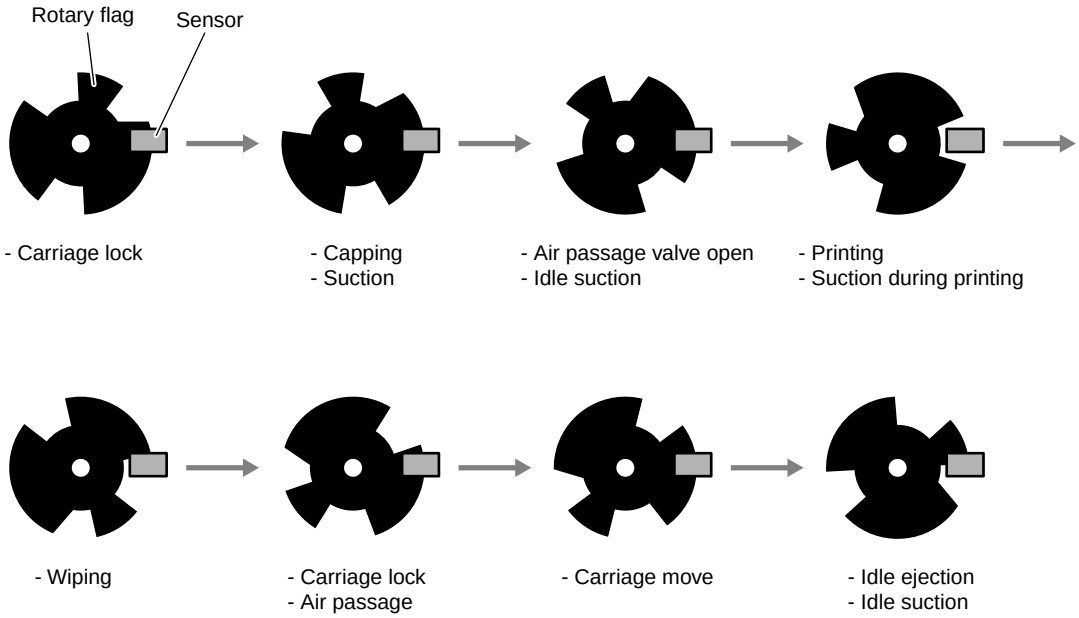
2.5.2 Ink passage system

iPF750 / iPF755



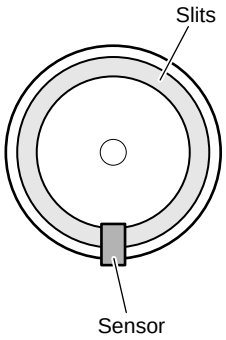
F-2-39

Pump cam sensor
The photo-interrupter-type pump cam sensor detects that the sensor light is shielded or unshielded by the rotary cam. The sensor detects the purge unit capping and wiping states with the combination of the state detected by the pump cam and the state of pump motor rotation control performed by the pump encoder.



F-2-40

Pump encoder sensor
The pump encoder is a photo-interruptive type sensor. It reads the slits on the pump motor's encoder film to control the amount of pump motor rotation.

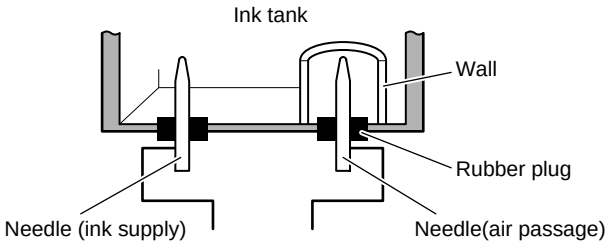


F-2-41

Ink supply valve open/closed detection sensor (L)/(R)
The photo-interrupter-type ink supply valve open/closed detection sensor detect the valve cam state.
When the link that operates in conjunction with the ink supply valve cam shields light, this sensor detects that the ink supply valve has been opened.

Ink passage valve open/closed detection sensor (L)/(R)
The photo-interrupter-type ink passage valve open/closed detection sensor detect the valve cam state.
When the link that operates in conjunction with the ink passage valve cam shields light, this sensor detects that the ink passage valve has been opened.

Ink detection sensor (L)/(R)
Presence of absence of ink in the ink tank is detected according to whether the two hollow needles are electrically connected.
When the ink level in the ink tank lowers below the wall around the hollow needle at the air passage, this hollow needle is electrically disconnected form the hollow needle located on the ink supply side, thus detecting that the printer has run out of ink.



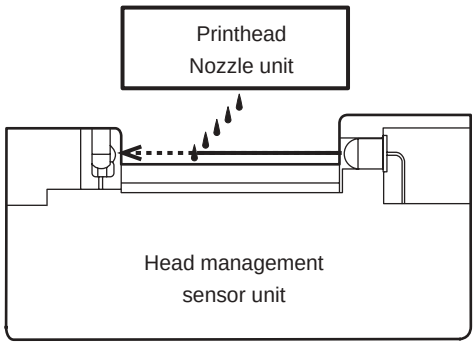
F-2-42

Shutter HP sensor
The photointerrupter-type sensor detects the presence of the cshutter at the home position.

Head management sensor
The photo-transmission-type sensor detects that the printhead is discharging ink.
The carriage moves to and stops at the detection positions for individual nozzle arrays. When the carriage is at a stop, nozzles discharge ink on after another.
The sensor detects each nozzle due to the voltage change caused when ink discharged from the nozzle blocks the sensor light.

Non-discharging nozzle detection is carried out at the following timings:
- After the execution of Cleaning 1, Cleaning 2, Cleaning 3, Cleaning 6 or Cleaning 10
- After the number of copies that has been set by the user menu choice Nozzle Check Frequency have been printed

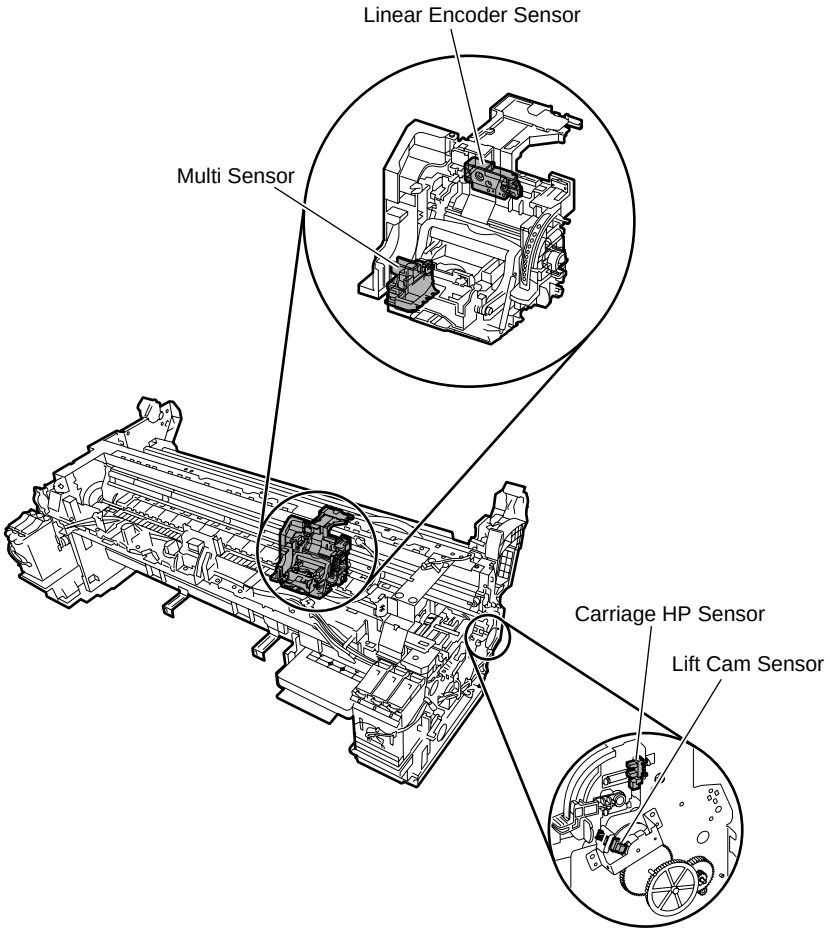
If more than a specified number of non-discharging nozzles have been located in one session of non-discharging nozzle detection, the normal cleaning sequence is launched before a second session of non-discharging nozzle detection is conducted. If more than a specified number of non-discharging nozzles are located in the second session of non-discharging nozzle detection, the normal (High) cleaning session is launched before a third session of non-discharging nozzle detection is conducted.
If there are at least 320 non-discharging nozzles out of 2560 nozzles as the result of non-discharging nozzle detection, printing is canceled after displaying a message to replace the head.
However, if service mode: [SERVICE MODE] > [SETTING] > [HEAD DOT INF] is [ON], the following message appears.
If there are at least 30 nozzles unable to correct the non-discharging state and the number of non-discharging nozzles is less than 100 out of 2,560 nozzles as the result of non-discharging nozzle detection, printing can continue after displaying a message to check the printing. Also, if the number of non-discharging nozzles is at least 100 but less than 320 nozzles, printing can continue after displaying a message to check the head. And if there are at least 320 non-discharging nozzles, printing is canceled after displaying a message to replace the head.



F-2-43

2.5.3 Carriage system

iPF750 / iPF755



F-2-44

Carriage HP sensor
The photointerrupter-based carriage HP sensor detects the home position of the carriage.
Installed on the right side plate of the printer, the sensor detects an edge of the carriage home position on the carriage unit under carriage unit under carriage movement control.
The printer establishes the carriage home position from the position at which its edge is detected as a reference position.

Linear encoder sensor
Mounted on the back of the carriage, the linear encoder detects the position of the carriage from a slit in the linear scale during its movement.

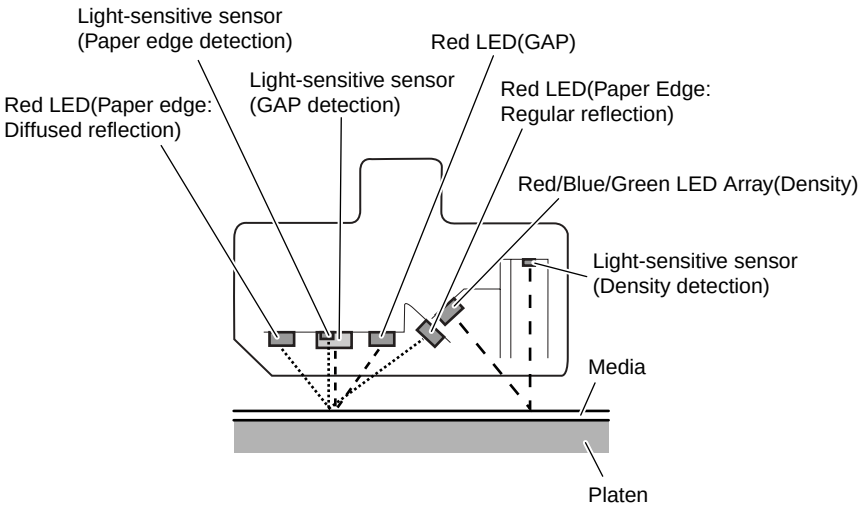
Lift cam sensor
A photointerrupter-based sensor. After the sensor light is shielded by the flag, the lift motor is driven by a predetermined number of pulses to regulate the separation between the printheads and platen automatically.

Ambient temperature sensor
The thermostat-based ambient temperature sensor mounted on the carriage PCB detects the ambient temperature to which the carriage is exposed.
The resistance of the thermistor that varies as a function of temperature changes in the printer is transmitted to the main controller via the carriage PCB.
The ambient temperature is used to help calibrate the head temperature sensor and detect abnormal ambient temperatures.

Head temperature sensor
The head temperature sensor detects the temperature of the printhead.
The printhead temperature is transmitted to the main controller via the carriage PCB.
The printhead temperature is used to help control the head drive and detect abnormal printhead temperatures.

Printhead contact detection
The printhead contact detects the status of printhead installation by electrical means.
The contact detects the status of contact from voltage changes in the flexible cables on the carriage side that come into contact with two terminals of the printhead with remote contact surfaces, the power terminals and GND terminal.

Multi sensor
A photo reflective type multi sensor consists of three red LEDs, one red/blue/green LED array, and three light receiving sensors and is used for media end, skew, and width adjustment, registration adjustment, head height adjustment, and print position adjustment.
Media leading edge detection, head height (GAP) detection, and print density detection are performed by independent LED and sensor.
A clear film media detection (regular reflection) LED and a non-clear film media detection (diffused reflection) LED are used for end of media detection.
The head height is detected by receiving the reflection of red LED from the media with two sensors in a light receiving sensor and calculating the difference in measurements.
The print density is detected by receiving the reflection of red/blue/green LED array from the media and determining the density of the printed surface.

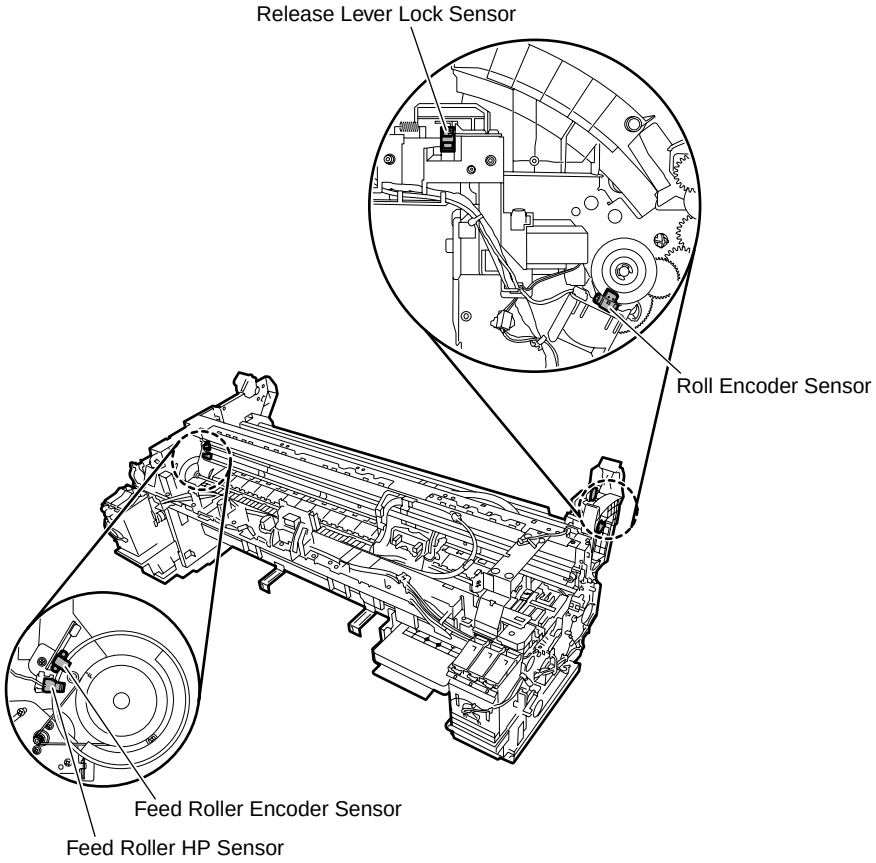


F-2-45

Service mode: After SERVICE MODE > ADJUST > GAP CALIB. has been carried out, pass paper to make sure that it is detected properly.

2.5.4 Paper path system

iPF750 / iPF755



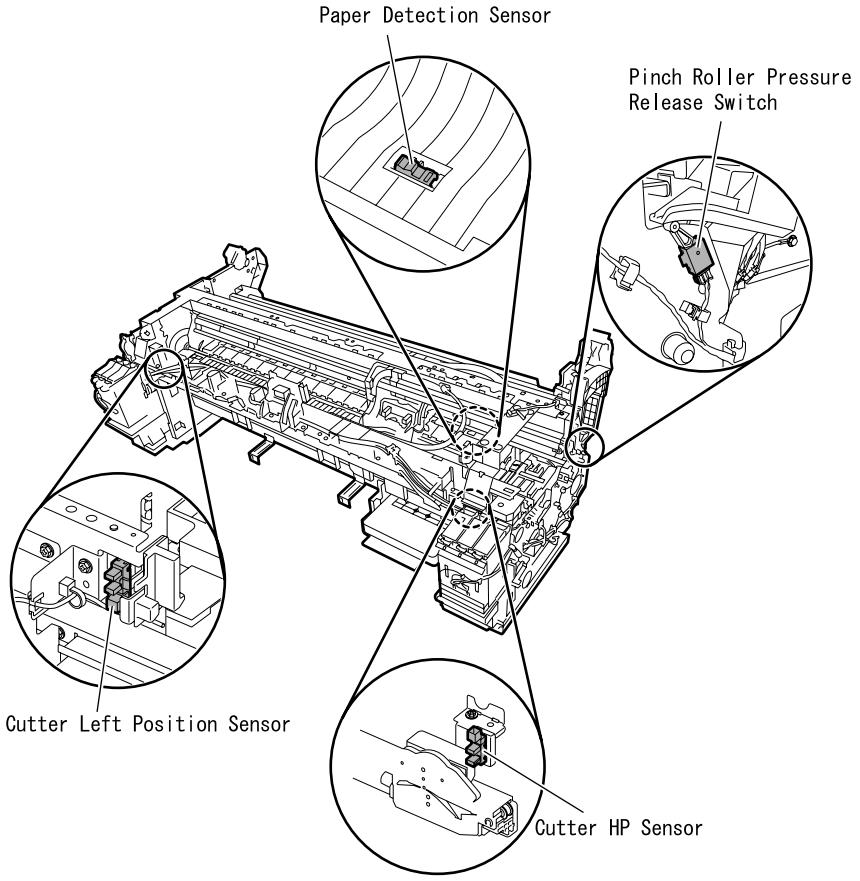
F-2-46

Feed roller HP sensor
The feed roller HP sensor detects a reference white (transmitted) to black (shielded) transition from the encoder at power on and sets a home position for correcting the eccentricity of the feed roller.

Feed roller encoder sensor
The feed roller encoder sensor detects the rate of paper transport per revolution of the feed roller from slits in the encoder during driving.

Release lever lock sensor
A photointerrupter type sensor. This sensor detects the release lever lock status when the release lever solenoid turns ON and the sensor flag shields the sensor light.

Roll encoder sensor
A photointerrupter type sensor. This sensor detects the rotation of the roll holder by reading the encoder film at the roll media drive unit.



F-2-47

Paper detection sensor
A photoreflective type sensor. When a media is fed from the manual feed unit and roll feed unit, this sensor detects the presence of media by receiving the light reflected from the media.

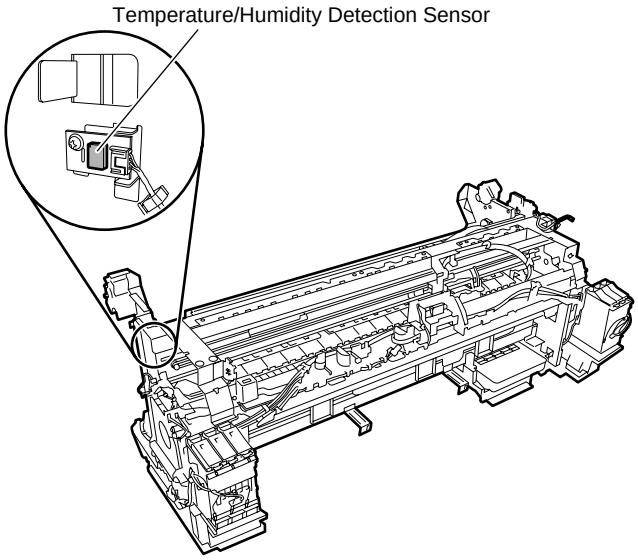
Cutter HP sensor
The photointerrupter-type sensor detects the presence of the cutter at the home (rightmost) position.

Cutter left position sensor
The photointerrupter-type sensor detects the presence of the cutter at the leftmost position.

Pinch roller pressure release switch
A micro switch type pinch roller pressure release switch detects the application/release of pinch roller pressure. The pinch roller pressure release switch is depressed when the media release lever is set and detects the pressure of the pinch roller.

2.5.5 Others

iPF750 / iPF755



F-2-48

Temperature/humidity detection sensor
The temperature/humidity detection sensor detects the temperature and relative humidity around the printer to implement head height adjustment, maintenance jet control, waste ink evaporation calculation and suction fan control on the basis of the temperature and relative humidity thus measured.

Chapter 3 INSTALLATION

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3.1 Transporting the Printer

3.1.1 Transporting the Printer

3.1.1.1 Transporting the Printer

iPF750 / iPF755

Do not remove the printhead once they are installed, as this may cause the nozzles to dry out or accumulate foreign matter. Also the head must be capped and stay in the carriage while transporting the printer. In spite of this precaution, shocks incurred during transportation can still damage the printhead. Print the "Nozzle Check" before moving the printer, print the "Nozzle Check" after installing in a new location, and compare the two printouts. If any deterioration is evident in the output quality, replace the printhead with new ones.

This subsection describes how to transport the printer.
When moving the printer to another place on the same floor of the building, move it slowly so that it does not receive any shocks. Follow the steps shown in "1. Moving the printer on the same floor".
When moving it elsewhere, follow the steps shown in "2. How to transport the printer to a different floor".

⚠
Always hold the carrying handles at the bottom of the printer when lifting and moving the printer. Holding the printer by its cover can deform the cover.
Moving or transport operations where the printer needs to be temporarily tilted or stood upright must be performed by service personnel.

---

1. Moving the printer on the same floor
1) Turn off the [Power] button, and check that the heads are capped and carriage is locked.
2) Remove the roll holder from the roll unit.
3) Remove the interface cable and power cord from the printer.
4) Unlock the casters on the stand.
5) Hold the printer carrying handle at the bottom, and then slowly move the printer.

⚠
If the printer is subjected to strong vibrations when it is moved, it can cause ink leakage or damage to the printhead. Be sure to move the printer slowly and carefully.

---

2. How to transport the printer to a different floor
Follow the steps shown in a) When the printer is operating properly. When the printer is not operating properly due to breakdown or a power-supply problem, follow the steps shown in b) When the printer is not operating properly.

a) When the printer is operating properly

⚠
To prevent the waste ink from leaking, drain the ink, and then remove the maintenance cartridge. Package the removed maintenance cartridge so that the waste ink does not leak from it.

---

1) Turn on the [Power] button on the printer.
2) Remove the roll holder from the roll unit.
3) Enter the Main menu, and then select "Set./Adj. Menu" > "Prep.MovePrinter". Follow the instructions in the messages, and remove all of the ink tanks.
Put the removed ink tanks in the plastic bag with the ink supply part upward and close the opening.

⚠
- "Prep.MovePrinter" cannot be selected when "MTCart Full Soon" is displayed.
In this case, replace the maintenance cartridge first.
- Never disconnect the power cord, or open the covers while the "Prep.MovePrinter" operation is in progress since this can cancel the operation. If the "Prep.MovePrinter" operation is canceled while in progress, the printer will remain in offline mode, and it will not switch to online mode. "Ink Filling" is performed when the power is turned back on after canceling so repeat "Prep.MovePrinter" from the beginning.

---

4) Once the "Prep.MovePrinter" operation is completed, turn off the [Power] button.
5) Open the upper cover, check that the heads are capped and carriage is locked.
6) Close the upper cover.
7) Disconnect the interface cable and power cord from the printer.
8) Wait 15 minutes after "Prep.MovePrinter" and then remove the maintenance cartridge and package them so that used ink does not leak from them.

⚠
Check that used ink is no longer leaking after removing the maintenance cartridge. If it is leaking, install the maintenance cartridge and wait until leaking stops.

---

9) Attach the cushioning materials and tape.
10) Remove the printer from the stand.
11) Pack the printer into the packing box, and then put the roll media, ink tank and stand in another packing box for moving.
Use the original packing material for the printer and stand. If it is not available, pack them with a sufficient amount of cushioning materials.

b) When the printer is not operating properly
1) Make sure that the printer is turned off.
2) Disconnect the interface cable and power cord from the printer.
3) Remove the roll holder from the roll unit.
4) While referring to DISASSEMBLY/REASSEMBLY > Draining the Ink > Manual Ink Drainage, drain the ink from the printer.
5) While referring to INSTALLATION > Transporting the Printer > Transporting the Printer> Manual Capping, perform the capping and lock of the carriage operations.
6) Remove the maintenance cartridge, and then package it so that the waste ink does not leak from it.
7) Attach all of the external covers.
8) Attach the cushioning materials and tape.
9) Remove the printer from the stand.

10) Pack the printer into the packing box, and then put the roll media, ink tank and stand in another packing box for moving.
Use the original packing material for the printer and stand. If it is not available, pack them with a sufficient amount of cushioning materials.

3. Manual capping
When transporting the printer, cap the Printhead to protect the nozzles from drying out and to keep them clean. Follow the procedures described below:
1) While referring to DISASSEMBLY/REASSEMBLY > Points to Note on Disassembly and Reassembly > Opening the caps and releasing the carriage lock pins, open all of the caps.
2) Move the carriage to the home position.
3) While referring to DISASSEMBLY/REASSEMBLY > Points to Note on Disassembly and Reassembly > Opening the caps and releasing the carriage lock pins.

Manual capping is an emergency measure when the printer does not operate. Manual capping can damage the printhead.

3.1.2 Reinstalling the Printer

3.1.2.1 Reinstalling the Printer

iPF750 / iPF755

1. Installing the printer on the same floor
If ink has not been drained from the printer when moving it to another place on the same floor, then an operation check (Test Print) needs to be performed after the printer is moved to a new location.

2. Installing the printer on a different floor
If ink has been drained when transporting the printer to a different floor, follow the installation procedure below. It is nearly identical to the procedure when installing for the first time.

1) Unpack the printer.
2) Remove the cushioning materials and tape.
3) Reattach the maintenance cartridge.
5) Connect the power cord and interface cable.
6) Turn on the power and following the instruction in the message to install the ink tank. The ink is filled.
7) Load the media, and perform the operation check.

Chapter 4 DISASSEMBLY/REASSEMBLY

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4.1 Service Parts

4.1.1 Service parts

iPF750 / iPF755

The service parts indicated below require careful handling.

1. Keep all packages with the warning not to turn over.
Pay careful attention to all individually packaged service part (carriage unit, purge unit, ink tank unit, and other parts) boxes marked "This side up" and handle appropriately.

F-4-1

2. Feed roller
The feed roller is a functionally important part. Therefore, be careful that the roller is not scratched or marked during storage or transport of the service parts, when removing them from the individual boxes, when assembling, or performing any other
operations.
For details about handling of the feed roller, refer to DISASSEMBLY/REASSEMBLY > Points to Note on Disassembly and Reassembly > Feeder unit a) Handling of the feed roller.

4.2 Disassembly/Reassembly

4.2.1 Disassembly/Reassembly

iPF750 / iPF755

For the procedure for disassembly/reassembly of the components excluding the major components, refer to the parts catalog.
Illustrations in the parts catalog are assigned illustration numbers according to the order in which parts are disassembled.

4.3 Points to Note on Disassembly and Reassembly

4.3.1 Note on locations prohibited from disassembly

iPF750 / iPF755

Assemblies that are prohibited from disassembly and their adjustment outside the factory cannot be conducted are indicated by red screws.
Don't never loosen or remove the red screw, because normal operation and print can't be done if it is loosened or removed.

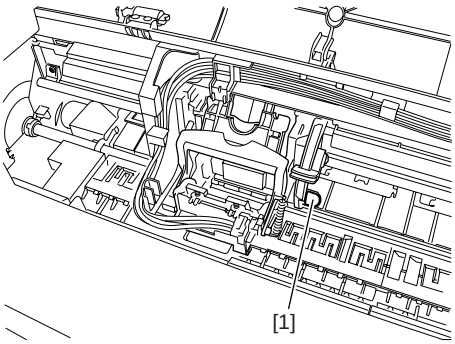
F-4-2

4.3.2 Moving the carriage manually

iPF750 / iPF755

Hold the handle [1] when moving the carriage.

Move the carriage as required during assembly and disassembly to prevent the carriage from contacting the parts to be removed.
You cannot move the carriage when capping has been performed. Refer to DISASSEMBLY/REASSEMBLY > Points to Notes on Disassembly and Reassembly > Opening the caps and moving the wiper unit to remove the caps, and then move the carriage.



F-4-3

4.3.3 Units requiring draining of ink

iPF750 / iPF755

When disassembling the following units of the ink passage, drain the filled ink completely to prevent ink leakage. For how to drain the ink, refer to **DISASSEMBLY/REASSEMBLY > Points to Notes on Disassembly and Reassembly > Draining the ink.**

[1] Carriage unit
Refer to DISASSEMBLY/REASSEMBLY > Points to Notes on Disassembly and Reassembly > Carriage unit.
[2] Ink tube unit
Refer to DISASSEMBLY/REASSEMBLY > Points to Notes on Disassembly and Reassembly > Ink tube unit.
[3] Ink tank unit
Refer to DISASSEMBLY/REASSEMBLY > Points to Notes on Disassembly and Reassembly >Ink tank unit.

4.3.4 External Covers

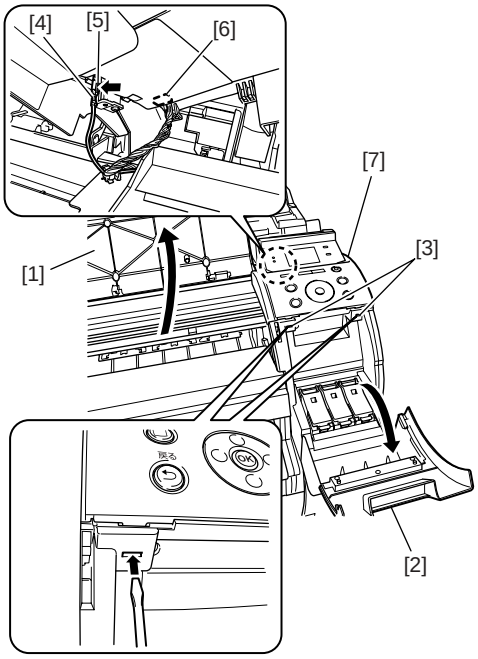
iPF750 / iPF755

a) Operation Panel

Removing the Operation Panel

1) To remove the operation panel, open the upper cover [1] and right tank cover [2], and then release two hooks [3] using a flat head screwdriver.

2) Remove the cable from the cable guide, and then remove the ground wire [5] by pushing the hook [4] from the backside of the operation unit and disconnect the connector [6], and then remove the operation panel [7].

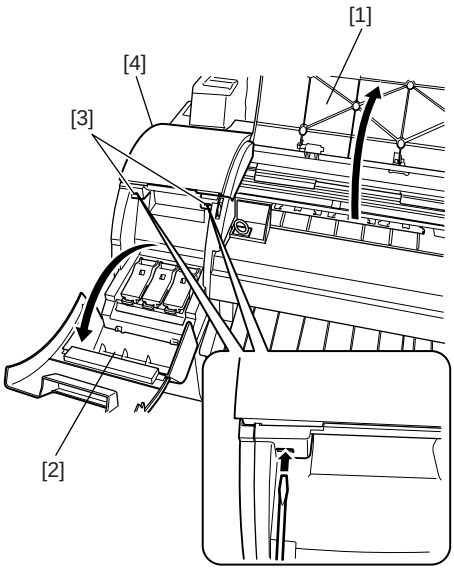


F-4-4

b) Upper Left Cover

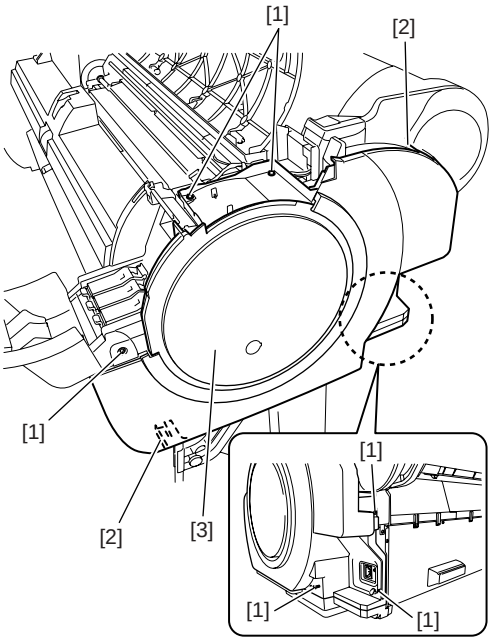
Removing the Upper Left Cover

1) To remove the upper left cover [4], open the upper cover [1] and left tank cover [2], and then release two hooks [3] using a flat head screwdriver.



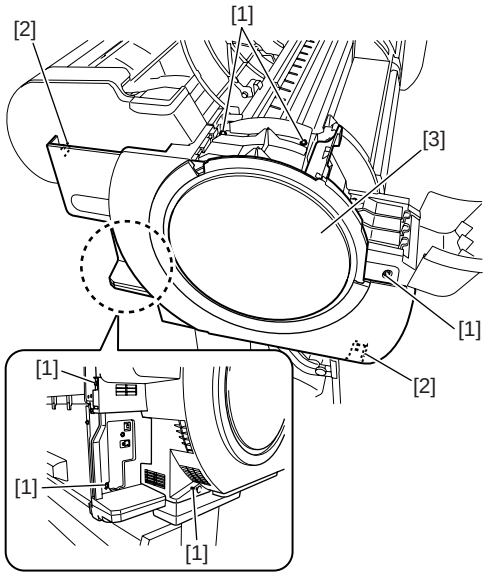
F-4-5

c) Right Cover
Removing the Right Cover
1) To remove the right cover, remove the operation panel.
2) Remove six screws [1], release two hooks [2], and then remove the right cover [3].



F-4-6

d) Left Cover
Removing the Left Cover
1) To remove the left, remove the upper left cover.
2) Remove six screws [1], release two hooks [2], and then remove the left cover [3].

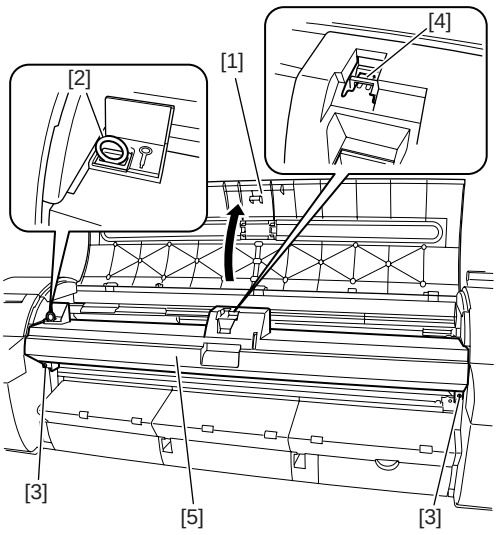


F-4-7

e) Front Cover

Removing the Front Cover

1) To remove the front cover [5], open the upper cover [1] to remove the cleaner brush [2], remove two screws [3], and then release one hook [4].

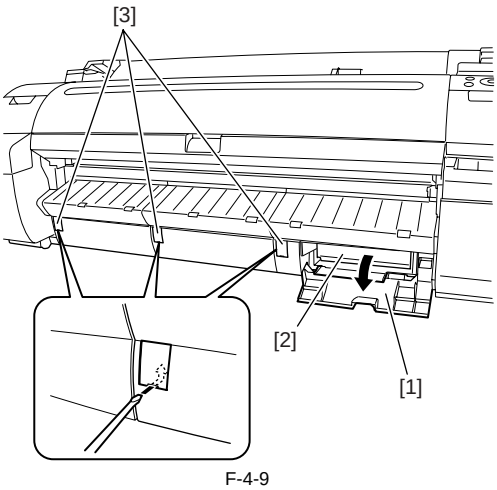


F-4-8

f) Output Guide

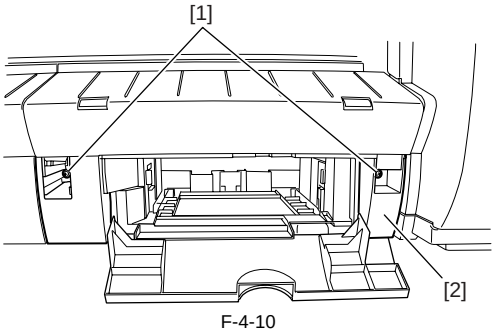
Removing the Output Guide

1) To remove the output guide, open the maintenance cartridge cover [1] to remove the maintenance cartridge [2], and then remove the blanking cover [3] by inserting a flat blade screwdriver in the slit.



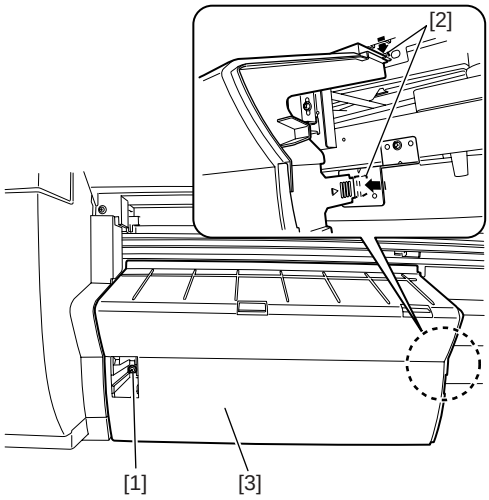
F-4-9

2) Remove two screws [1], and then the output guide (right) [2].



F-4-10

3) Remove one screw [1], release two hooks [2], and then remove the output guide (middle)/left [3].



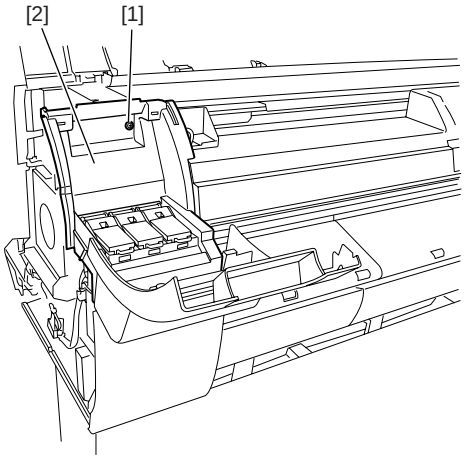
F-4-11

g) Left/Right Ink Tank Cover

Removing the Left/Right Ink Tank Cover

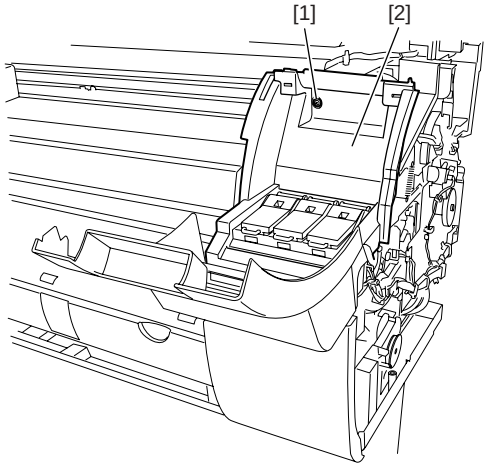
1) To remove the left/right ink tank cover [2], remove the left/right cover, and then one screw [1].

<Left Ink Tank Cover>



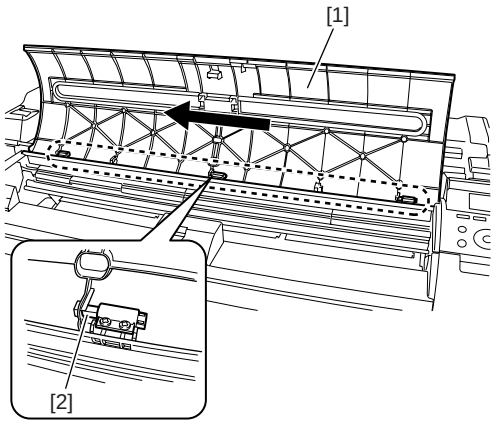
F-4-12

<Right Ink Tank Cover>



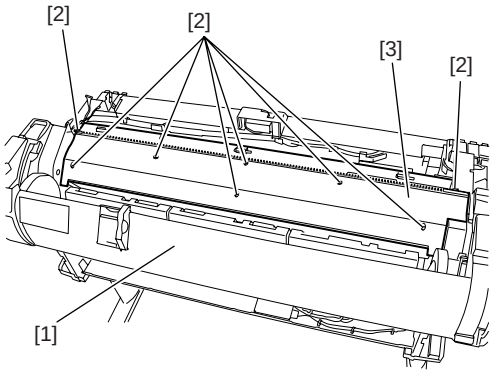
F-4-13

h) Upper Cover
Removing the Upper Cover
1) To remove the upper cover [1], remove the upper left cover, and then slide the upper cover [1] to the left to remove it from the hinge [2].



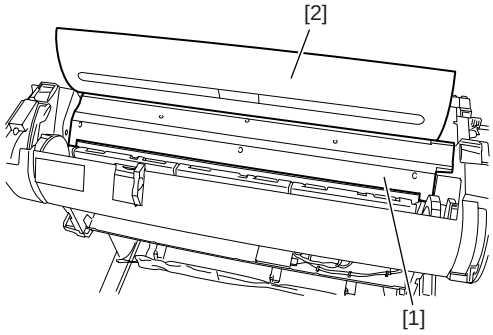
F-4-14

i) Rear Upper Cover
Removing the Rear Upper Cover
1) To remove the rear upper cover [3], remove the left/right cover and upper cover, open the roll cover [1], and then remove eight screws [2].



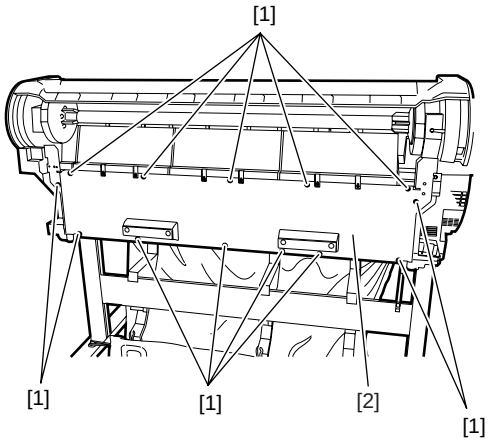
F-4-15

Memo:
The rear upper cover [1] and upper cover [2] can be removed together.



F-4-16

j) Rear Cover
Removing the Rear Cover
1) To remove the rear cover [2], remove 13 screws [1].

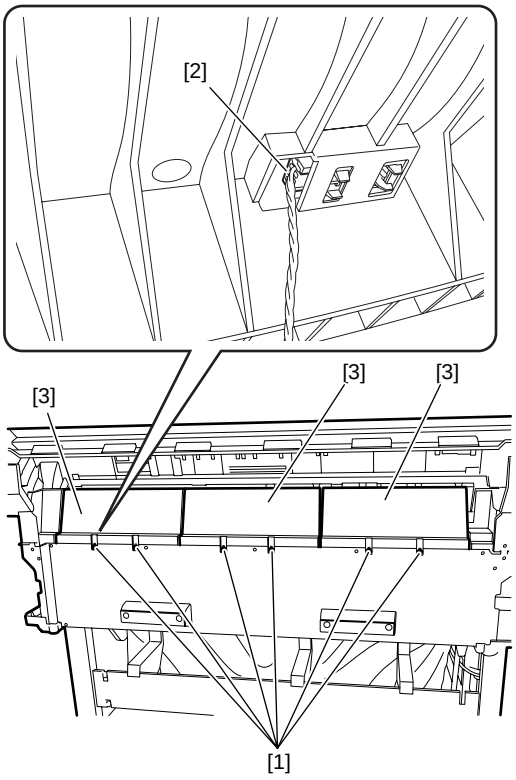


F-4-17

k) Roll Feed Unit
Removing the Roll Feed Unit

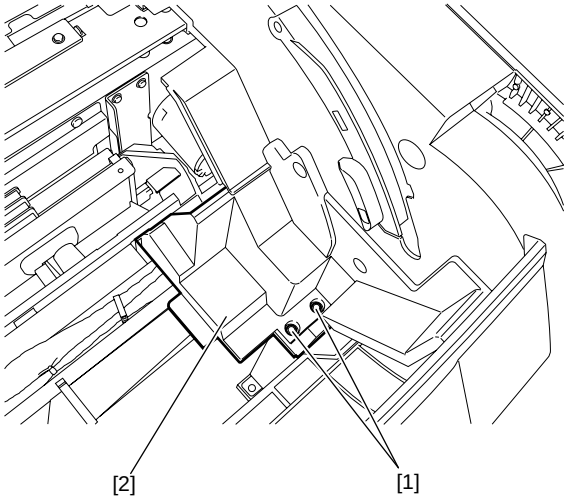
Memo:
Open/close the roll cover as needed.

1) To remove the roll feed unit, remove the roll holder, and then remove the rear upper cover.
2) Remove six screws [1] and one connector [2], and then the feed guide [3].



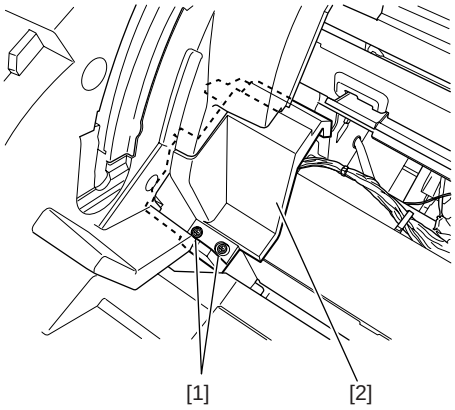
F-4-18

3) Remove four screws [1], and then the left and right roll lower inner covers [2].
<Left roll lower inner cover >



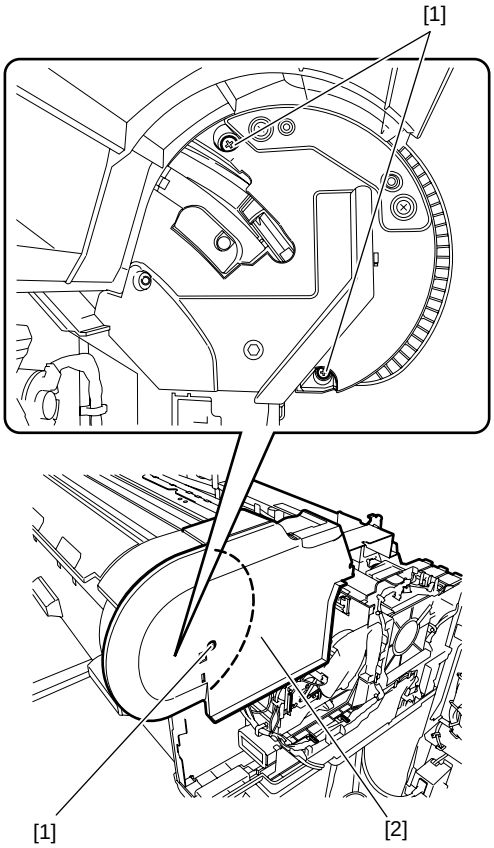
F-4-19

<Right roll lower inner cover>



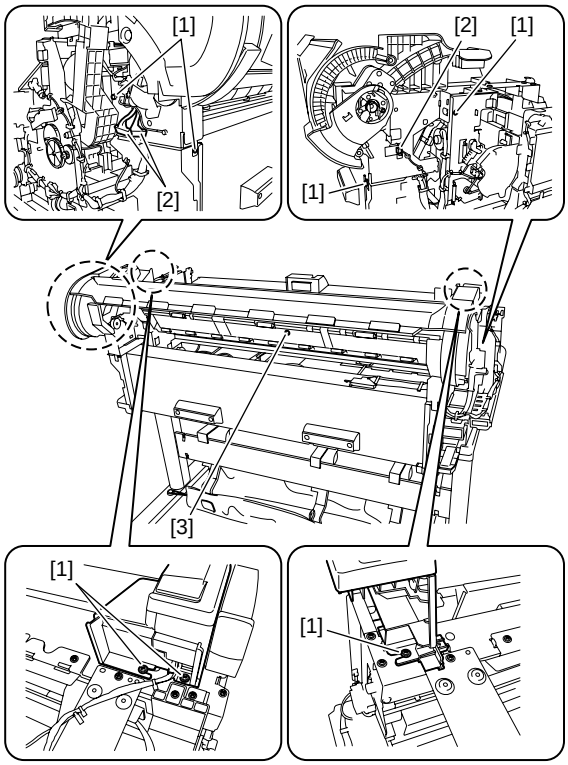
F-4-20

4) Remove three screws [1], and then remove the left roll cover [2].



F-4-21

5) Remove seven screws [1] and three connectors [2], and then remove the cable from the cable guide to remove the roll feed unit [3].

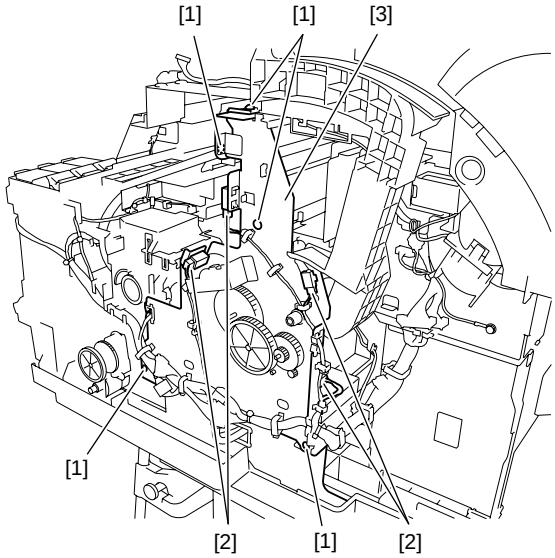


F-4-22

l) Release Lever

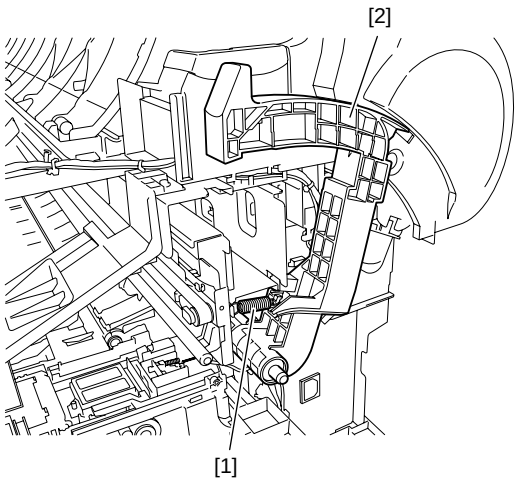
Removing the Release Lever

1) To remove the release lever, remove five screws [1] and four connectors [2], and then remove the cable from the cable guide to remove the right side plate unit [3].



F-4-23

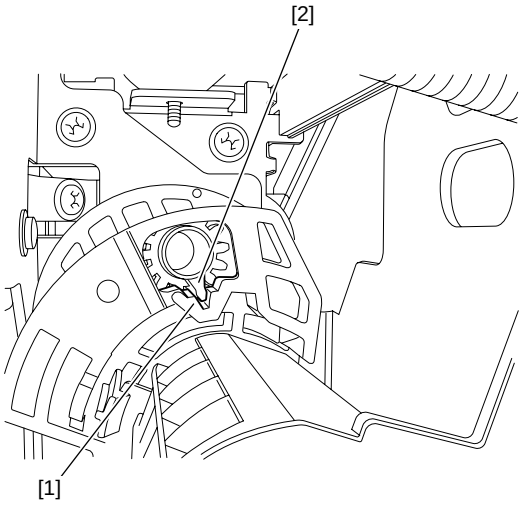
2) Remove one spring [1], and then the release lever [2]. Keep the pinch roller pressurized to enable phase adjustment at the time of release lever reinstallation.



F-4-24

Precautions about Reinstallation of Release Lever

When reinstalling the release lever, align the notch [1] on the gear portion of the release lever with the protrusion [2] on the gear portion of the pinch roller.

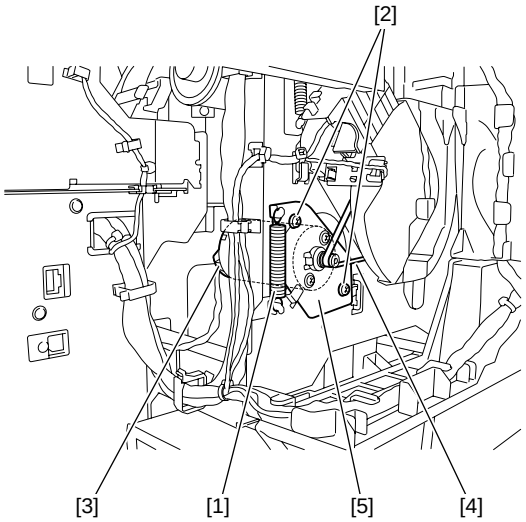


F-4-25

4.3.5 Drive Unit

iPF750 / iPF755

a) Feed Motor
Removing the Feed Motor
1) To remove the feed motor, remove the left cover.
2) Remove one spring [1], two screws [2], and one connector [3], and then remove the belt [4] from the motor pulley to remove the feed motor [5].



F-4-26

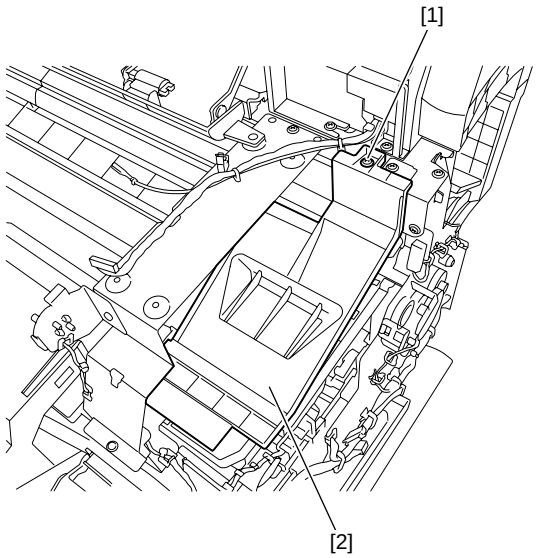
Precautions about Reinstallation of Feed Motor
Put the timing belt [4] on the pulley in the feed motor drive unit, tighten the screw [2] temporarily, install the spring [1], and then tighten the screw [2] to secure the feed motor [5].

b) Action to take after replacing the feed roller encoder and feed roller
This printer as shipped has the feed roller eccentricity (that is, variations in the rate of paper feed from rotation to rotation) corrected for enhanced media feed accuracy. When the feed roller HP sensor or feed roller encoder and feed roller pertaining to the correction of eccentricity variations has been replaced, therefore, they should require adjustment.
Execute service mode under the following conditions to launch automatic adjustment:
Service mode: SERVICE MODE > ADJUST > PRINT PATTERN > LF TUNING
Media type: Glossy photo paper

If adjustment cannot be done properly by selecting "SERVICE MODE > ADJUST > PRINT PATTERN > LF TUNING" (auto adjustment), carry out manual adjustment.

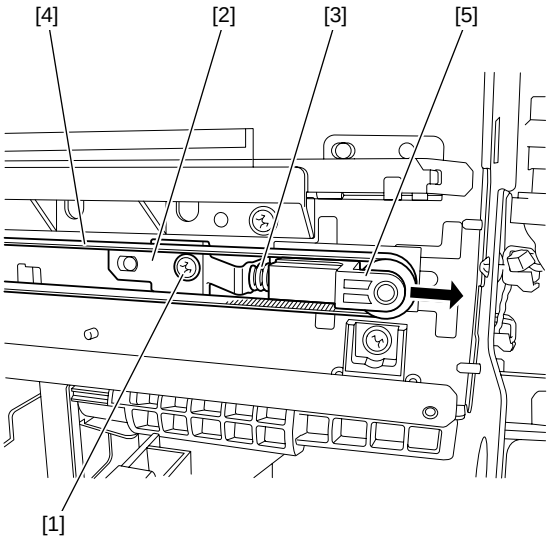
Service mode SERVICE MODE > ADJUST > PRINT PATTERN > LF TUNING2
Media type: Gloss photo paper
Check the printed pattern and enter values for adjustment.

c) Carriage Motor
Removing the Carriage Motor
1) Move the carriage onto the platen. Refer to "Disassembly/Reassembly > Points to Note on Disassembly and Reassembly > Opening the Cap/Moving the Wiper Unit".
2) Remove the left/right cover.
3) Remove one screw [1], and then remove the carriage upper cover [2].



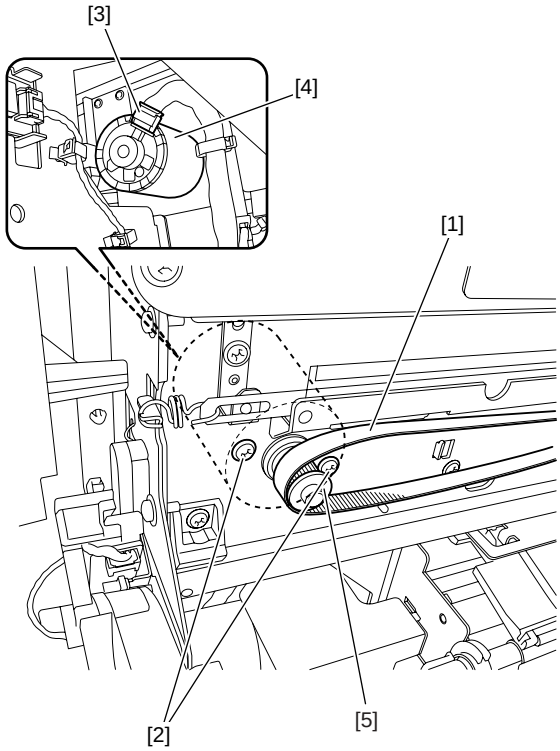
F-4-27

4) Remove one screw [1], pulley retainer [2] and spring [3] to loosen the carriage belt [4]. Remove the belt from the pulley unit [5], and then the pulley unit [5].



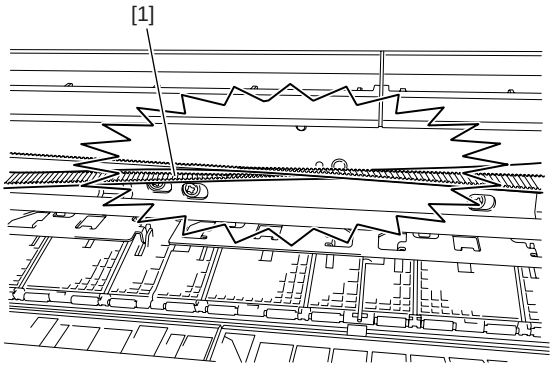
F-4-28

5) Remove the belt [1] from the pulley [5], and then remove two screws [2] and disconnect one connector [3] to remove the carriage motor [4].



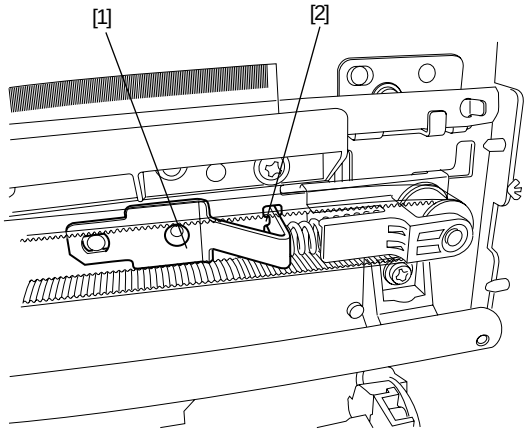
F-4-29

Precautions about Reinstallation of Carriage Motor
- Reinstall the carriage belt [1] carefully so that it is not twisted. After reinstalling it, check whether the carriage moves on the platen smoothly.



F-4-30

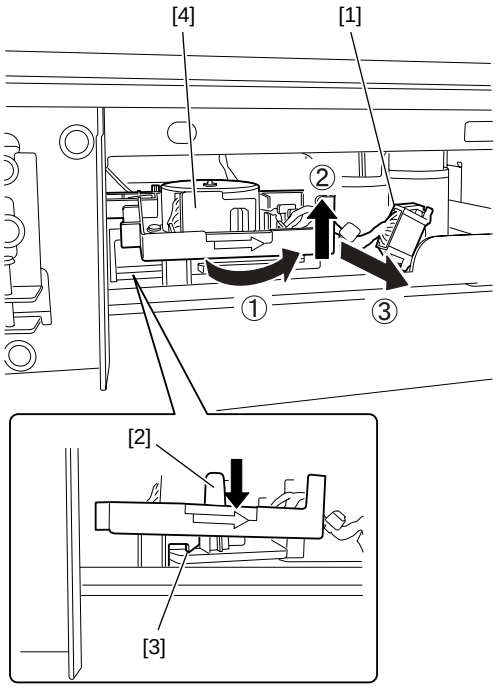
- Reinstall the pulley retainer [1] in such a manner that it fits in the notch [2] on the side plate.



F-4-31

d) Action to take after removing or replacing the carriage motor
After the carriage and carriage motor and carriage belt and linear encoder sensor has been removed or replaced, execute the following service mode.
Service mode: SERVICE MODE > ADJUST > CR MOTOR COG

e) Shutter Motor
Removing the Shutter Motor
1) To remove the shutter motor, remove the output guide (right).
2) Disconnect one connector [1]. While releasing the hook [3] by pressing the protrusion [2], turn the shutter motor unit [4] slightly in the clockwise direction. Remove the shutter motor unit [4] with it lifted.

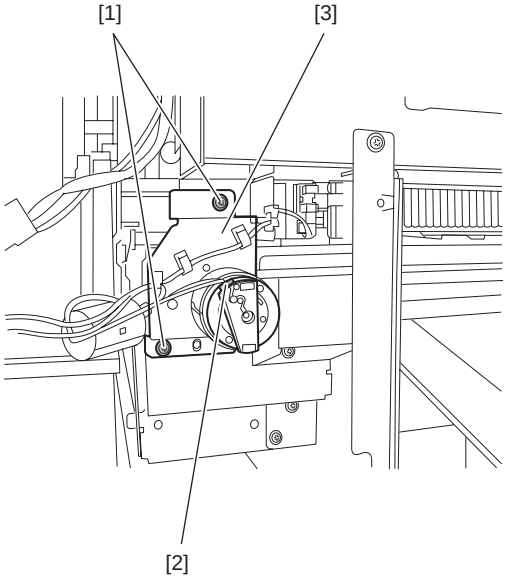


F-4-32

4.3.6 Cutter

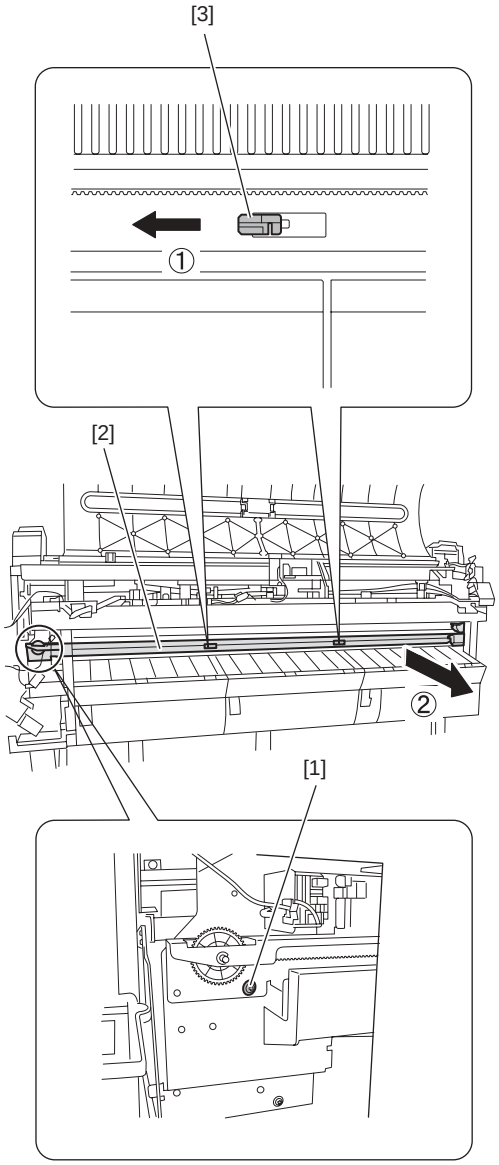
iPF750 / iPF755

a) Cutter
Removing the Cutter
1) Drain ink. Refer to "Draining Ink" in "Precautions about Disassembly/Reassembly" in "Disassembly/Reassembly".
2) To remove the cutter, remove the left ink tank cover, mist fan, and left ink tank unit.
3) Remove two screws [1] and disconnect one connector [2], and then remove the cutter unit [3].



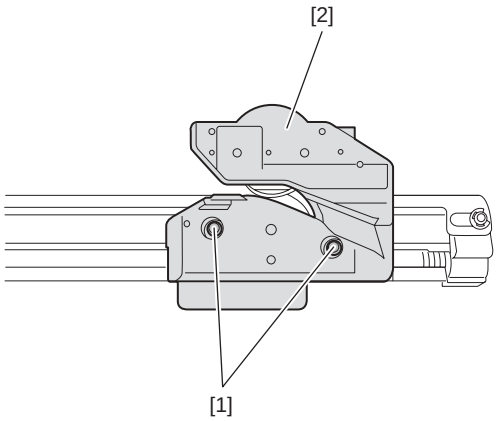
F-4-33

4) Remove one screw [1], move the cutter unit [2] to the left to release it from the protrusion [3], and then remove it rightward.



F-4-34

5) Remove two screws [1], and then remove the cutter [2].

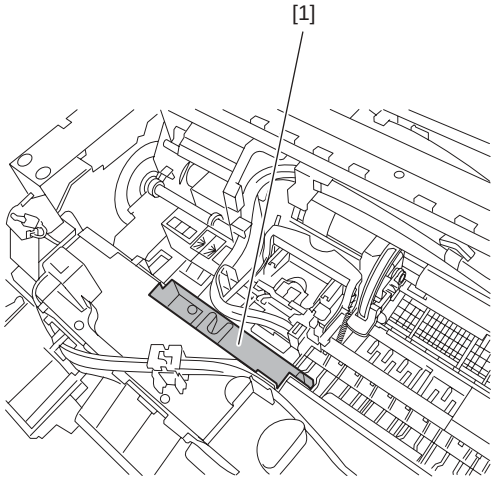


F-4-35

4.3.7 Carriage Unit

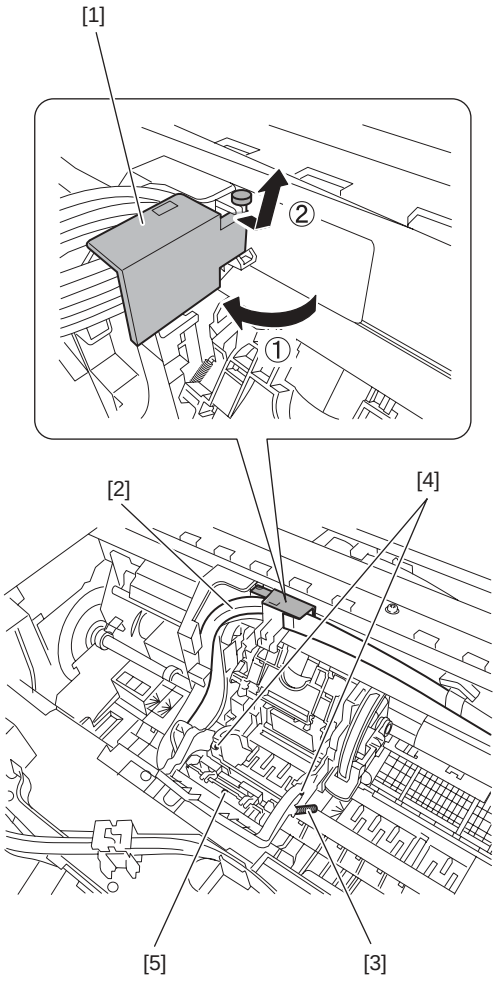
iPF750 / iPF755

a) Carriage Unit
Removing the Carriage Unit
1) Drain ink. Refer to "Draining Ink" in "Precautions about Disassembly/Reassembly" in "Disassembly/Reassembly".
2) Remove the rear upper cover, front cover, and rear cover.
3) Turn off the power, and then move the carriage to the position where there is a notch [1] at the front of the platen as shown in the figure. Refer to "Disassembly/Reassembly > Points to Note on Disassembly and Reassembly > Opening the Cap/Moving the Wiper Unit".



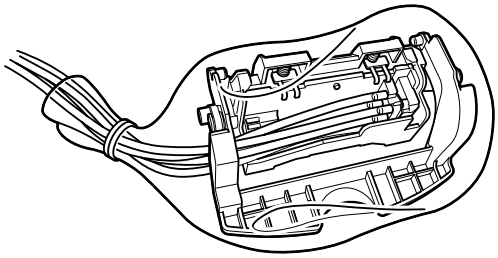
F-4-36

4) Remove the printhead.
5) Open the tube guide [1] an angle of 90 degrees frontward, and then remove the tube guide [1] together with the ink tube from the carriage.
Remove the ink tube [2] from the carriage guide, and then remove one spring [3] and two hooks [4] to remove the joint base [5] together with the printhead fixer lever.



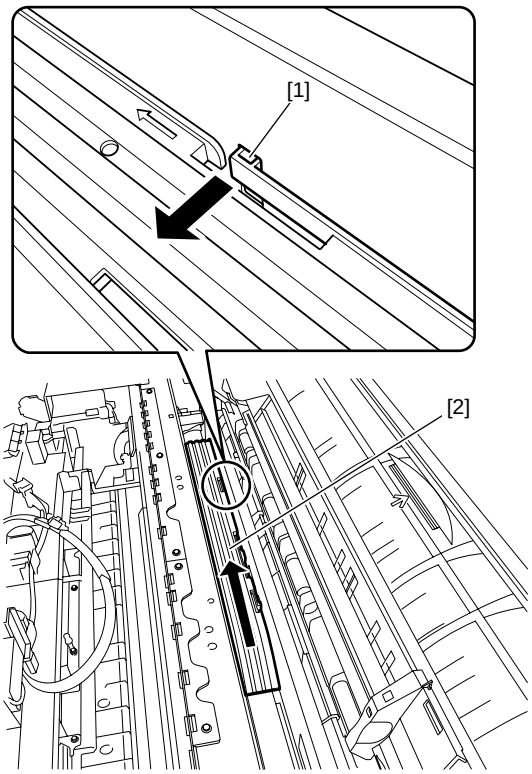
F-4-37

- Remove the joint carefully so that ink does not spout.
- Put a plastic bag or the like on the ink tube joint to prevent ink from spouting.



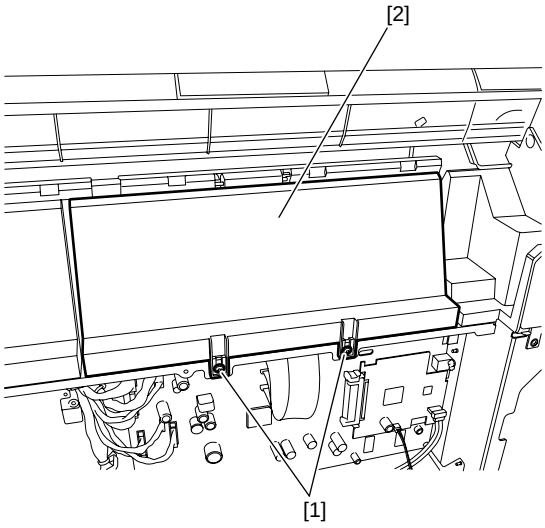
F-4-38

6) Move the carriage to the HP side on the platen.
7) Release the hook [1], and then remove the flexible cable guide [2] by sliding it to the left.



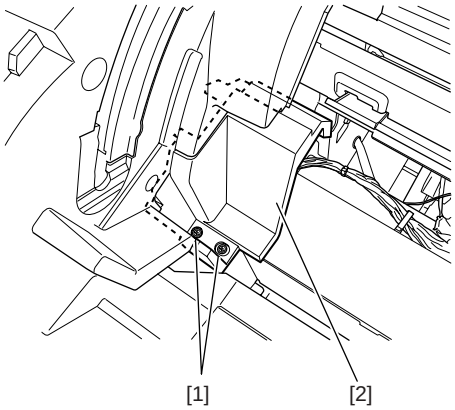
F-4-39

8) Remove two screws [1], and then remove the feed guide (left) [2].



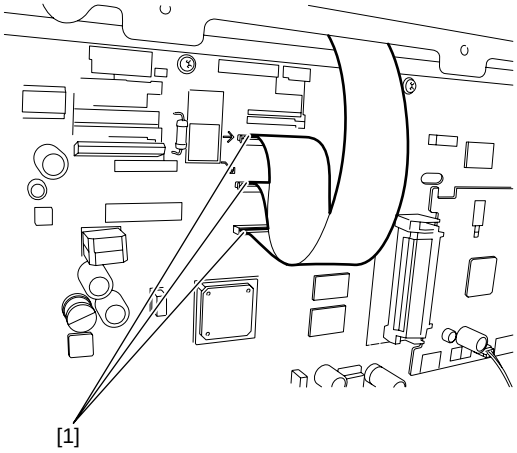
F-4-40

9) Remove two screws [1], and then remove the left roll lower inner cover [2].



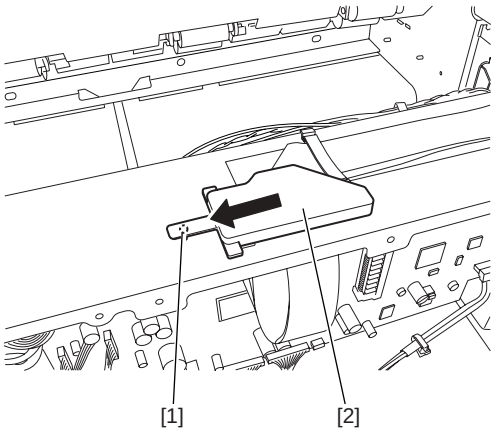
F-4-41

10) Disconnect three flexible cable connectors [1] from the main controller PCB.



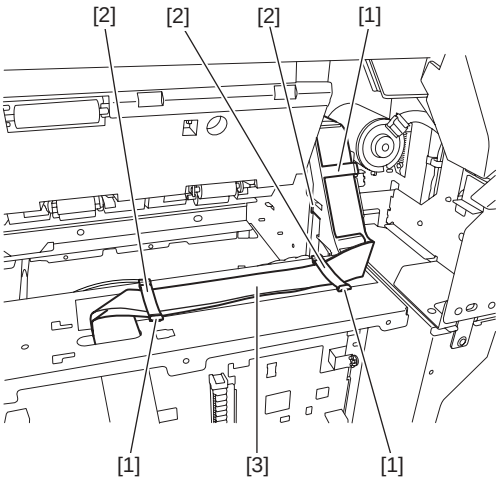
F-4-42

11) Release the hook [1], and then remove the flexible cable guide [2].



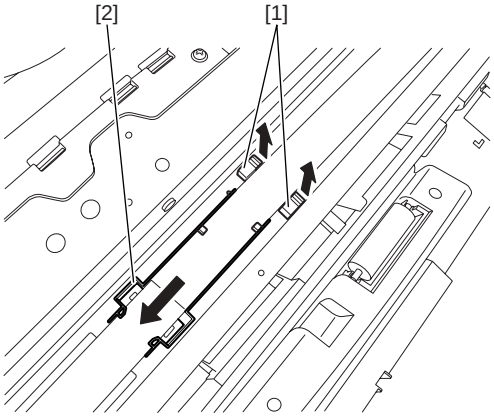
F-4-43

12) Release three hooks [1], and then remove the flexible cable [3] from the flexible cable retainer [2].



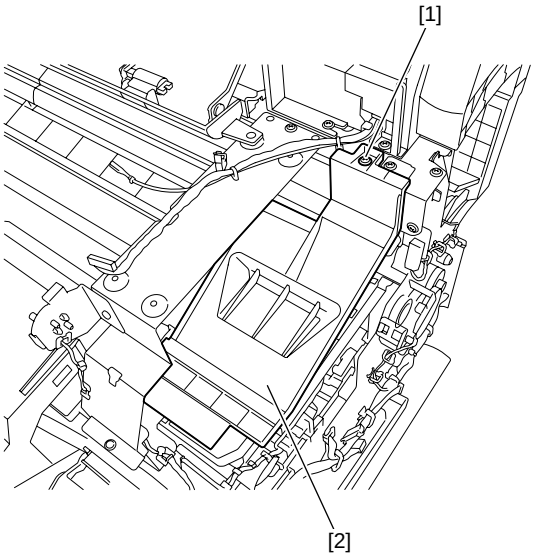
F-4-44

13) While releasing the hook with the guide [1] lifted, slide the flexible cable retainer [2] to remove it.



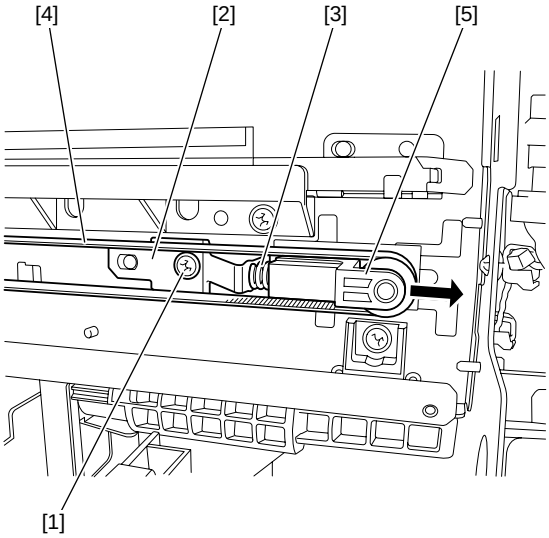
F-4-45

14) Remove one screw [1], and then remove the carriage upper cover [2].



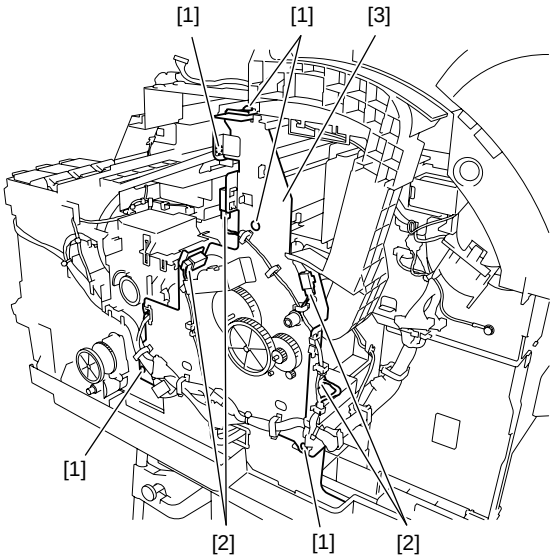
F-4-46

15) Remove one screw [1], the pulley retainer [2], and spring [3] to loosen the carriage belt [4]. Remove the belt [4] from the pulley unit [5], and then remove the pulley unit [5].



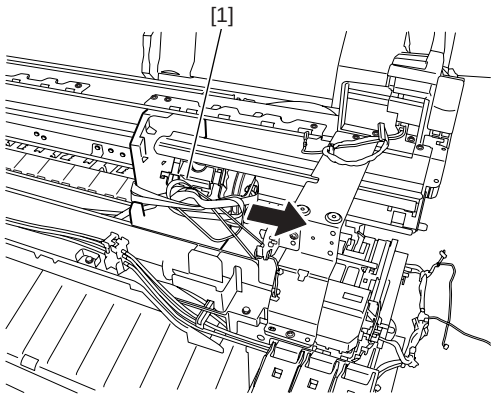
F-4-47

16) Remove the carriage belt from the carriage motor pulley.
17) Remove five screws [1] and disconnect four connectors [2], and then remove the cable from the cable guide to remove the right side plate unit [3].



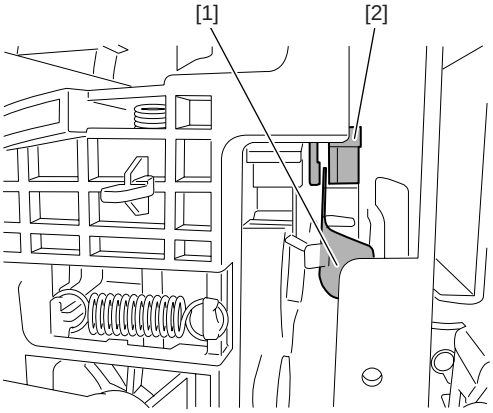
F-4-48

18) Remove the carriage unit [1] from the right side of the printer.



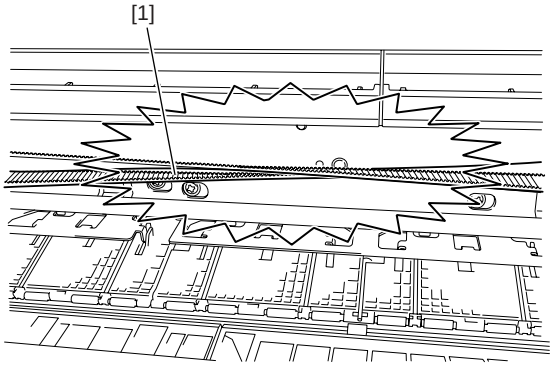
F-4-49

Precautions about Reinstallation of Carriage Unit
- Make sure that the linear scale [1] is in the detection zone of the linear encoder sensor [2].



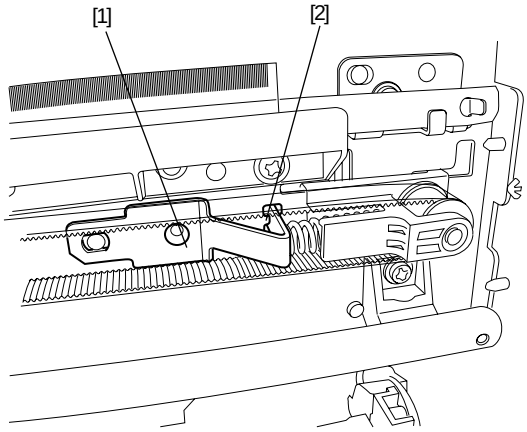
F-4-50

- Reinstall the carriage belt [1] carefully so that it is not twisted. After reinstalling it, check whether the carriage moves on the platen smoothly.



F-4-51

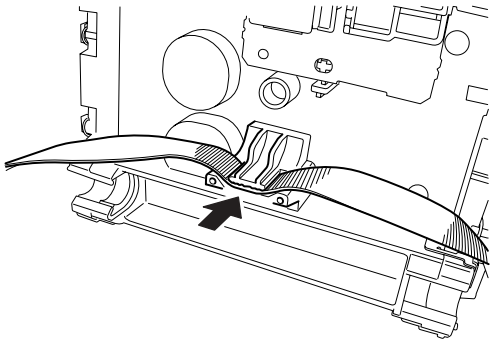
- Reinstall the pulley retainer [1] in such a manner that it fits in the notch [2] on the side plate.



F-4-52

- The phase of the carriage height adjuster is automatically adjusted as the motor turns, requiring no on-site adjustment.

Precautions about Reinstallation of Carriage Belt
- When reinstalling the carriage belt, push it deeply into the belt holder of the carriage.



F-4-53

b) Action following the replacement of the carriage unit/multi sensor
Because the distance between the multi sensor (in the carriage unit) and the nozzles (in the printhead) is varied from one unit to another, the printer as shipped has its optical axis corrected to adjust the image write position. When the carriage unit or multisensor has been replaced or disassembled and reassembled, they require adjustment.
Execute service mode under the following conditions:

* The multi sensor reference plate(QL2-3160-000:MOUNT, MULTI SENSOR REFERENCE) must be replaced at the same time whenever the carriage or the multi sensor is being replaced.

- Service mode : SERVICE MODE > ADJUST > GAP CALIB.

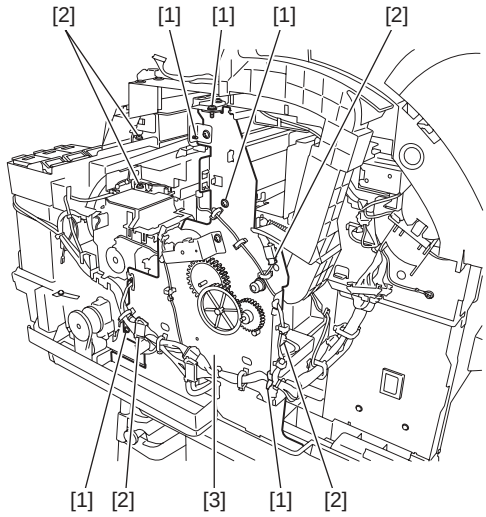
- Service mode : SERVICE MODE > ADJUST > PRINT PATTERN > OPTICAL AXIS
Media type : Photo glossy paper
Media size : Media having a width equal toor larger then that of A2-size paper

- After the carriage and carriage motor and carriage belt and linear encoder sensor has been removed or replaced, execute the following service mode.
Service mode: SERVICE MODE > ADJUST > CR MOTOR COG

4.3.8 Purge Unit

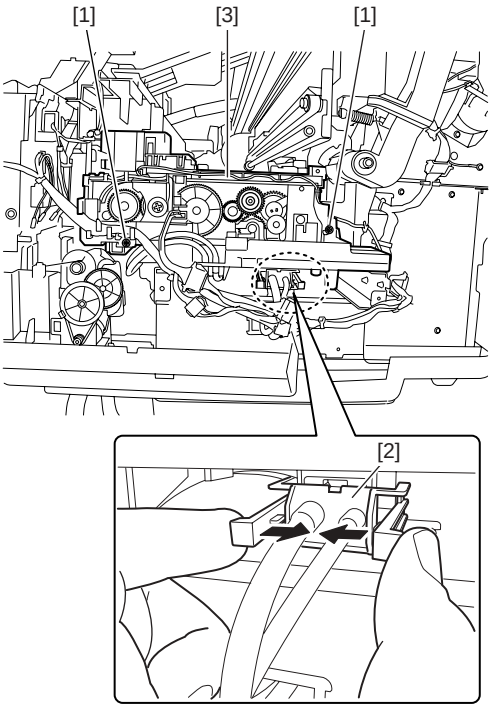
iPF750 / iPF755

a) Purge Unit
Removing the Purge Unit
1) Turn off the power, and then move the carriage onto the platen. Refer to "Disassembly/Reassembly > Points to Note on Disassembly and Reassembly > Opening the Cap/Moving the Wiper Unit".
2) Remove the right cover.
3) Remove five screws [1] and disconnect five connectors [2], and then remove the cable from the cable guide to remove the right side plate unit [3].



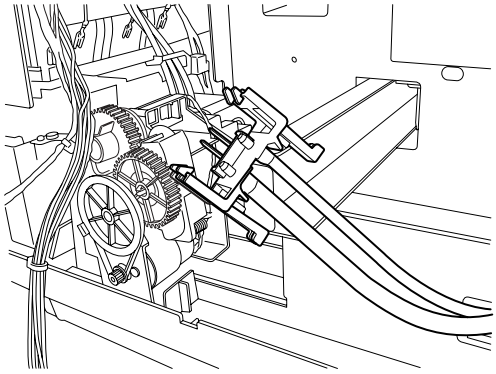
F-4-54

4) Remove two screws [1] and one waste ink tube joint [2], the cable from the cable guide, and then the purge unit [3].



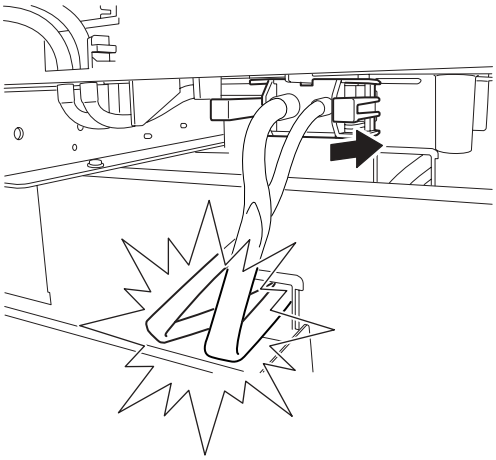
F-4-55

⚠
- Remove the waste ink tube joint carefully so that ink does not spout.
- To prevent ink from dripping off, hang the waste ink tube joint on the side plate with the joint up. Take extra care not to damage the ink tube.



F-4-56

Precautions about Reinstallation of Purge Unit
When reinstalling the waste ink tube joint, insert it deeply until it clicks. Also check that the joint is not disconnected and the tube is not buckled.

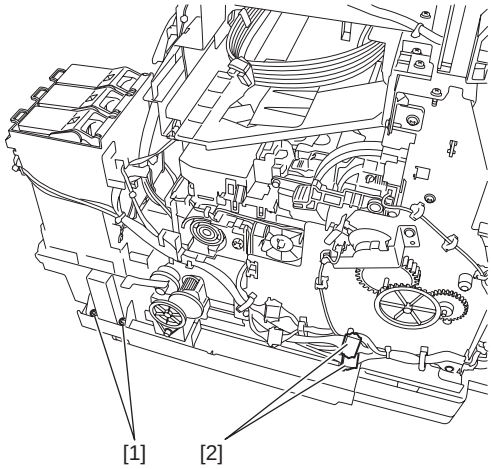


F-4-57

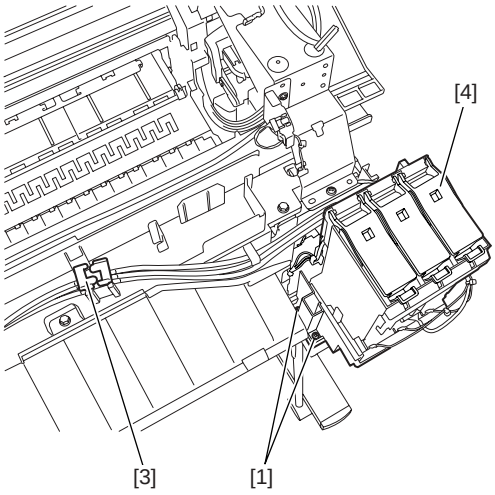
4.3.9 Ink Tank Unit

iPF750 / iPF755

a) Ink Tank Unit
Removing the Right Ink Tank Unit
1) Perform ink drainage. Refer to "Disassembly/Reassembly > Points to Note on Disassembly and Reassembly > Draining the ink".
2) Remove the right cover, right ink tank cover, and front cover.
3) Remove four screws [1] and disconnect two connectors [2], and then remove the cable from the cable guide.
4) Remove the joint [3] between the ink tube unit and ink tank unit carefully, the ink tube from the guide, and then remove the right ink tank unit [4].

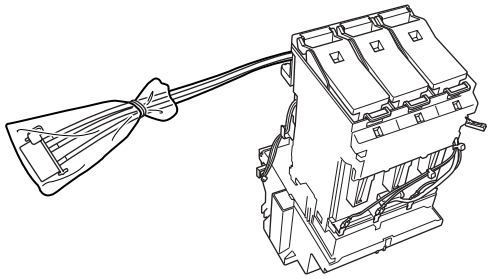


F-4-58

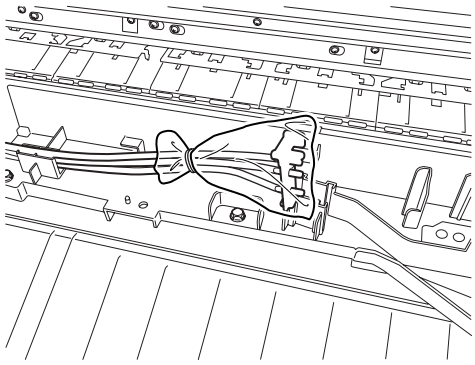


F-4-59

⚠
- Remove the joint carefully so that ink does not spout.
- Put a plastic bag or the like on the ink tube joint to prevent ink from spouting.



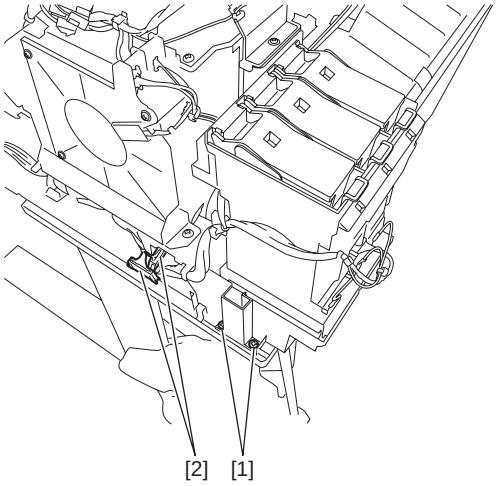
F-4-60



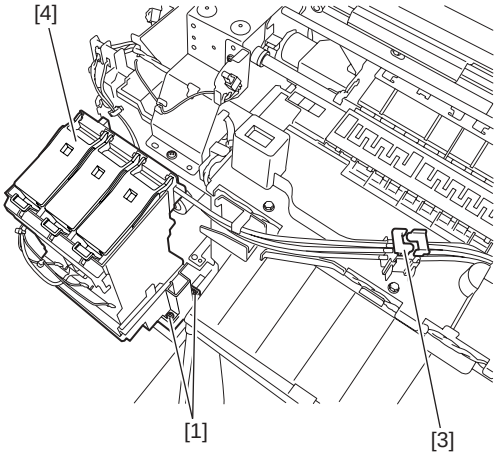
F-4-61

Removing the Left Ink Tank Unit

1) Perform ink drainage. Refer to "Disassembly/Reassembly > Points to Note on Disassembly and Reassembly > Draining the ink".
2) Remove the left cover, left ink tank cover, and front cover.
3) Remove four screws [1] and disconnect two connectors [2], and then remove the cable from the cable guide.
4) Remove the joint [3] between the ink tube unit and ink tank unit carefully, the ink tube from the guide, and then remove the left ink tank unit [4].

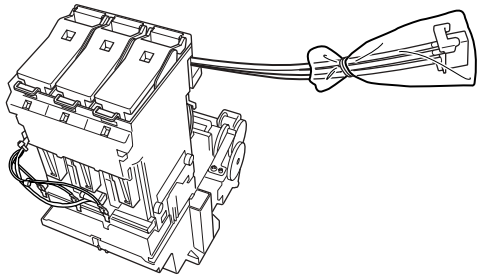


F-4-62

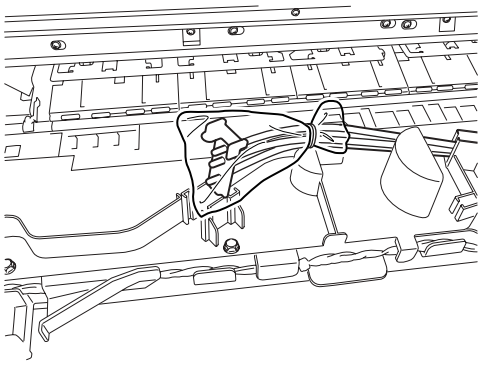


F-4-63

⚠
- Remove the joint carefully so that ink does not spout.
- Put a plastic bag or the like on the ink tube joint to prevent ink from spouting.

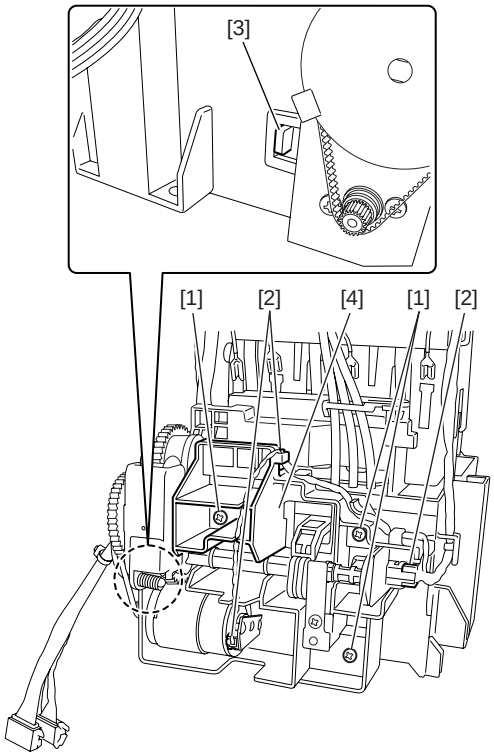


F-4-64



F-4-65

b) Valve Motor Unit
Removing the Valve Motor Unit
1) Remove the ink tank unit.
2) Remove three screws [1] and disconnect three connectors [2], and then remove the cable from the cable guide to remove the valve unit [4] while pressing down the protrusion [3].

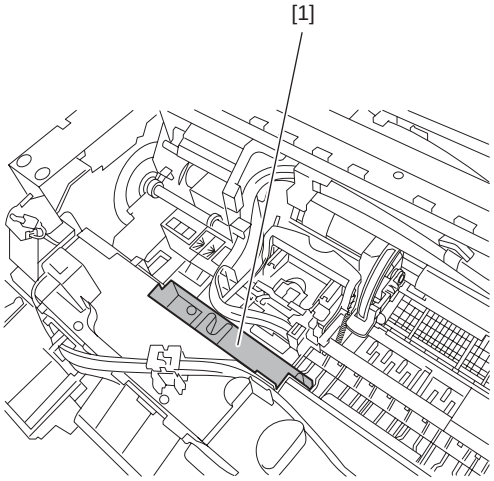


F-4-66

4.3.10 Ink Tube Unit

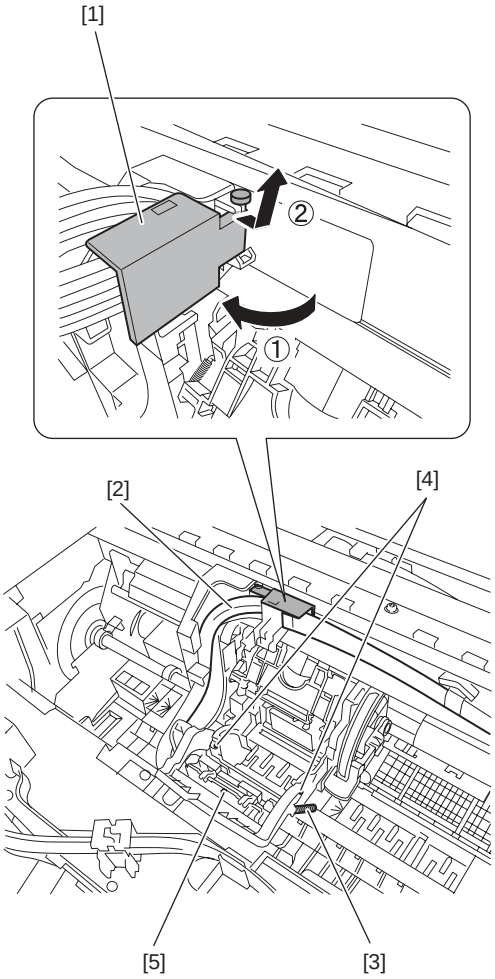
iPF750 / iPF755

a) Ink Tube Unit
Removing the Ink Tube Unit
1) Perform ink drainage. Refer to "Disassembly/Reassembly > Points to Note on Disassembly and Reassembly > Draining the ink".
2) Turn off the power, and then move the carriage to the position where there is a notch [1] at the front of the platen as shown below. Refer to "Disassembly/Reassembly > Points to Note on Disassembly and Reassembly > Opening the Cap/Moving the Wiper Unit".



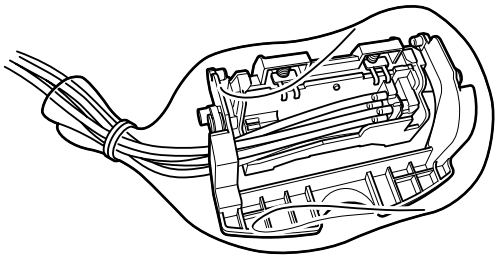
F-4-67

3) Remove the printhead.
4) Open the tube guide [1] an angle of 90 degrees frontward, and then remove the tube guide [1] together with the ink tube.
Remove the ink tube [2] from the carriage guide and one spring [3], release two hooks [4], and then remove the joint base [5] together with the printhead fixer lever.



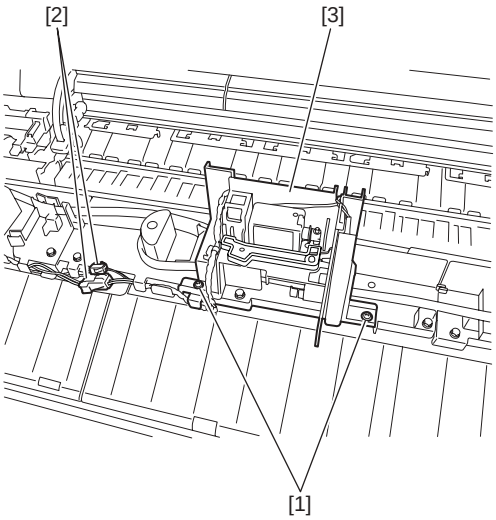
F-4-68

Put a plastic bag or the like on the ink tube joint to prevent ink from spouting.



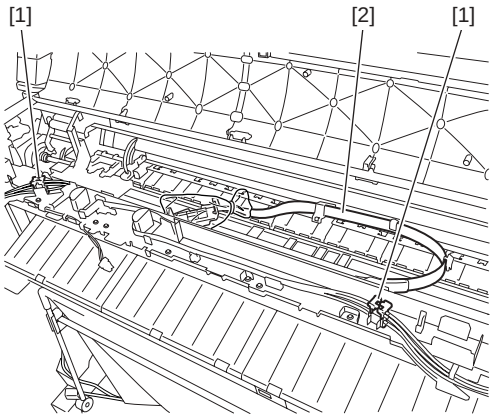
F-4-69

5) Remove two screws [1] and disconnect two connectors [2], and then remove the solenoid base [3].



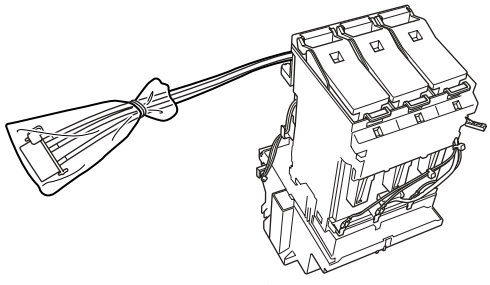
F-4-70

6) Remove the joint [1] between the ink tube unit [2] and ink tank unit carefully, and then remove the ink tube unit [2] from the guide.

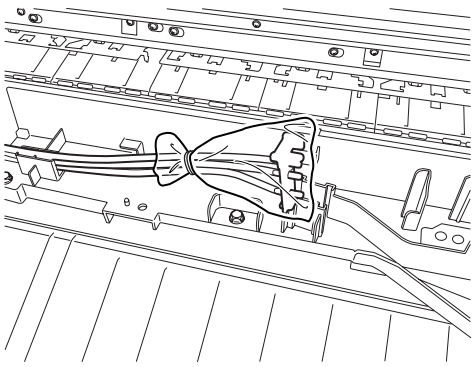


F-4-71

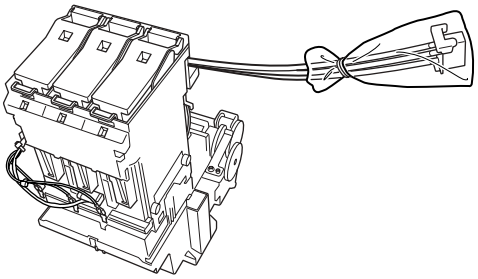
- Remove the joint carefully so that ink does not spout.
- Put a plastic bag or the like on the ink tube joint to prevent ink from spouting.



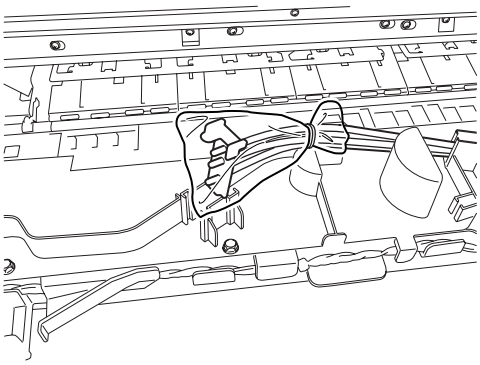
F-4-72



F-4-73

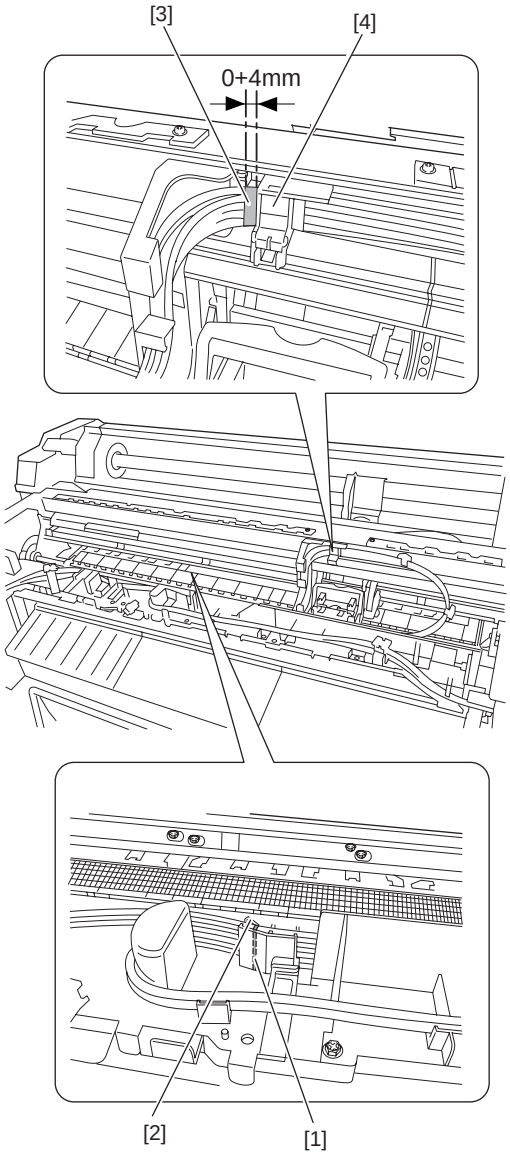


F-4-74



F-4-75

Precautions about Reinstallation of Ink Tube Unit
- Insert the ink tube and joint deeply into the guide.
- When installing the ink tube unit, align marking [1] on the ink tube unit to the right end of guide [2] and the left end of tape [3] to within 4mm from the left end of tube guide [4].



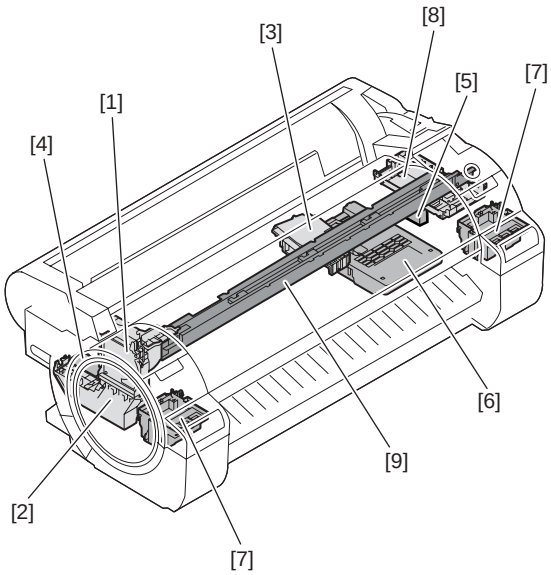
F-4-76

After detaching the joint of the ink tube unit, the joint might become easy to come off by the ink that has adhered to it.
In that case, please wash the joint by alcohol and remove the adhering ink.

4.3.11 Waste Ink Collection Unit

iPF750 / iPF755

When disassembling the waste ink collection unit, pay attention to the ink leaking from the disassembled parts. Put the parts of the disassembled waste ink collection unit in a plastic bag or the like with care given to the ink leaking from the portion [A] enclosed in a circle.
The service parts packing box may include a plastic bag for packing replacement parts. Use it for putting consumable parts of the waste ink collection unit.

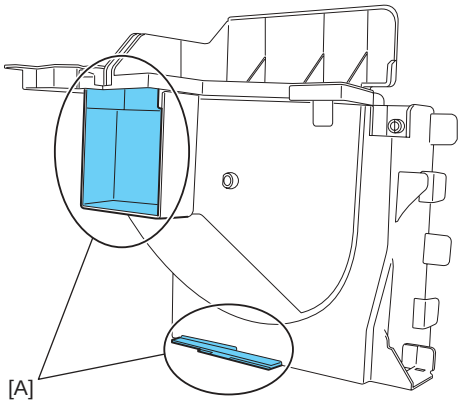


F-4-77

T-4-1

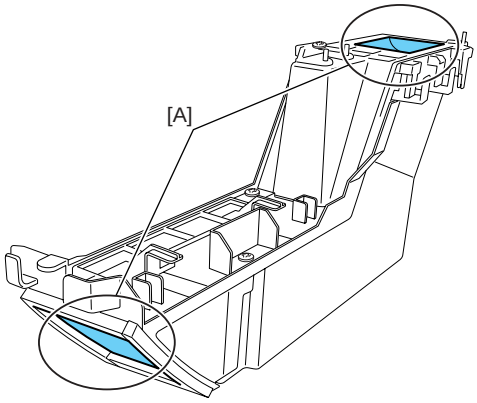
No	Name	Q'ty	Part number	Consumables	Service Mode (PARTS xx)
[1]	Mist Fan	1	QM3-5854	Yes	Mi-1
[2]	Mist Exhaust Duct	1	QM3-5853	Yes	Mi-1
[3]	Platen Suction Fan	1	QM3-5905		
[4]	Platen Exhaust Duct	1	QM3-5805	Yes	WF-2
[5]	Head Management Sensor	1	QM3-5956	Yes	HMa-1
[6]	Maintenance Cartridge	1	-		
[7]	Ink Tank Unit Waste Ink Tray	1	-		
[8]	Purge Unit Waste Ink Tray	1	-		
[9]	Front Duct	1	-		

[1] Mist Fan



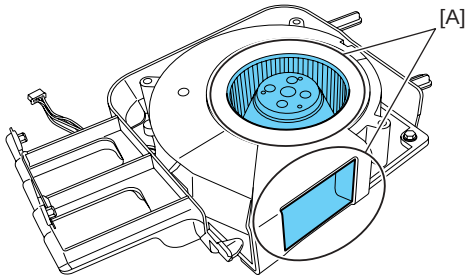
F-4-78

[2] Mist Exhaust Duct



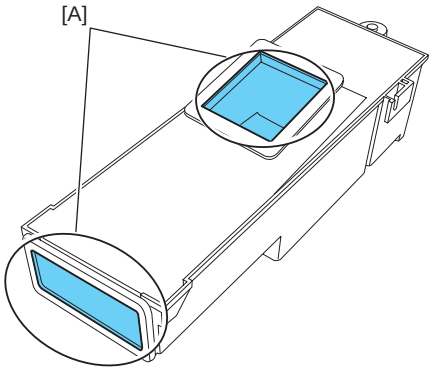
F-4-79

[3] Platen Suction Fan



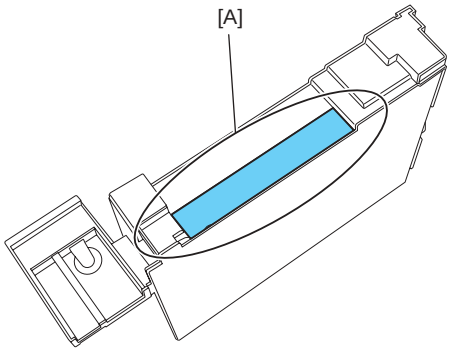
F-4-80

[4] Platen Exhaust Duct



F-4-81

[5] Head Management Sensor

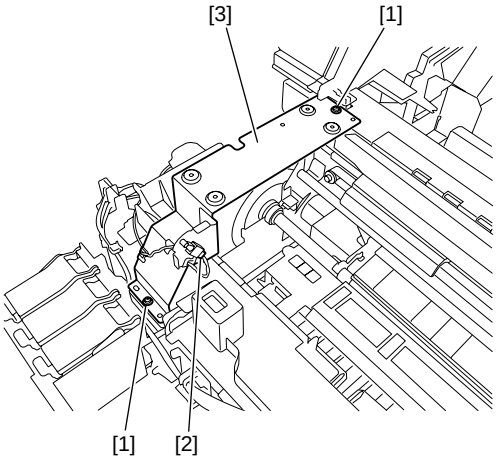


F-4-82

a) Mist Fan

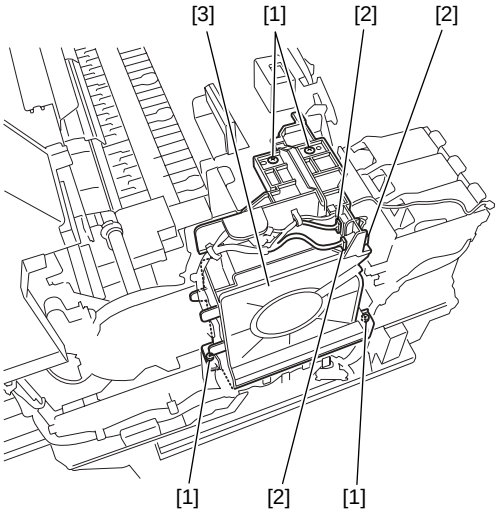
Removing the Mist Fan

1) Remove the rear upper cover and front cover.
2) Remove two screws [1] and disconnect two connectors [2], and then remove the cable from the cable guide to remove the support plate [3].



F-4-83

3) Remove four screws [1] and disconnect three connectors [2], and then remove the cable from the cable guide to remove the mist fan [3].

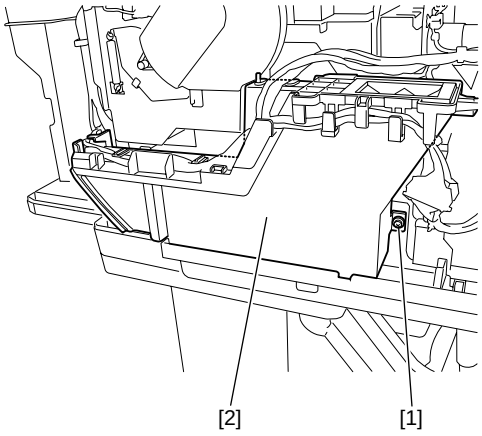


F-4-84

b) Mist Exhaust Duct

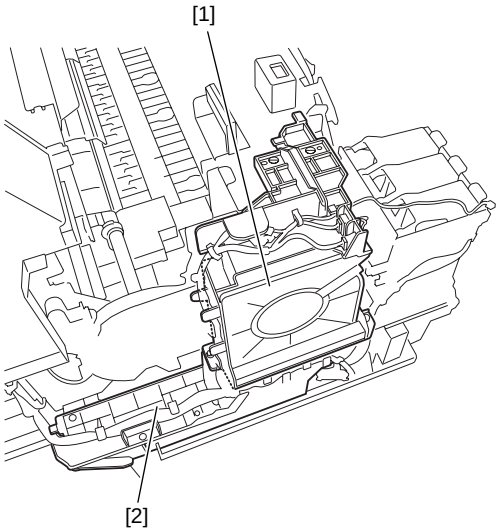
Removing the Mist Exhaust Duct

1) Remove the mist fan.
2) Remove one screw [1], and then remove the cable from the cable guide to remove the mist exhaust duct [2].



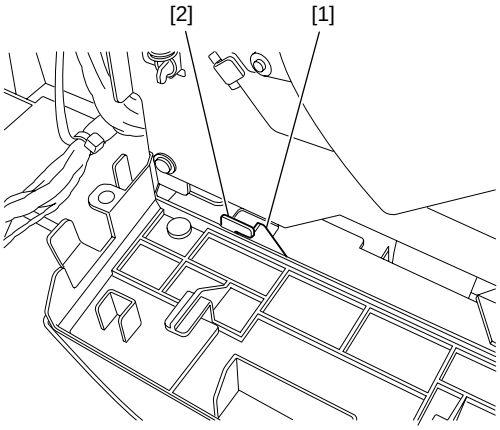
F-4-85

Memo:
The mist fan [1] and mist exhaust duct [2] can be removed together.



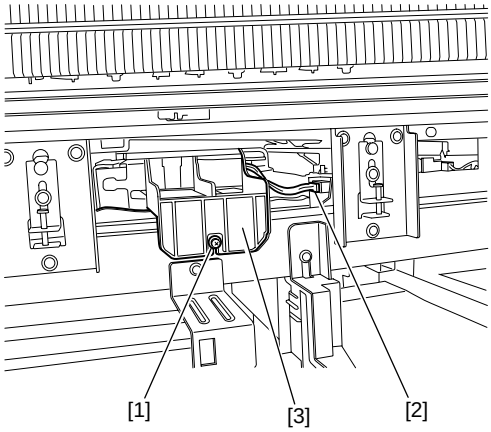
F-4-86

Precautions about Reinstallation of Mist Exhaust Duct
Make sure that the protrusion [1] on the mist exhaust duct fits in the notch [2] on the side plate.



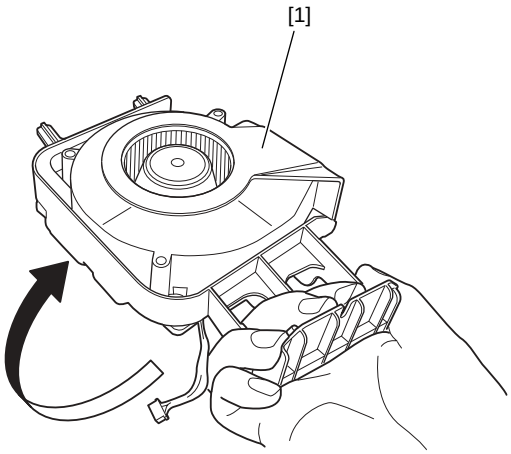
F-4-87

c) Platen Suction Fan
Removing the Platen Suction Fan
1) Remove the output guide (right)/(middle).
2) Remove one screw [1] and disconnect one connector [2] to remove the platen suction fan [3].



F-4-88

3) After drawing out the platen suction fan [1], turn it up side down immediately so that ink does not drip off.

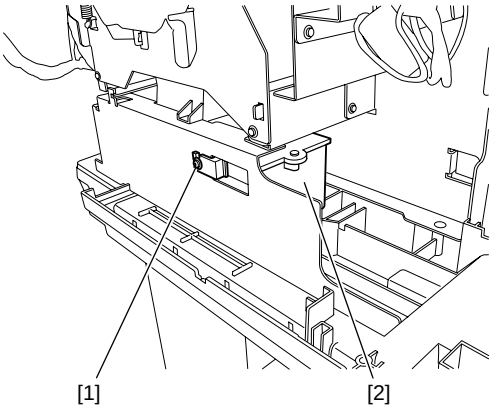


F-4-89

d) Platen Exhaust Duct

Removing the Platen Exhaust Duct

1) Remove the mist exhaust duct and left ink tank unit.
2) Remove one screw [1], and then the platen exhaust duct [2].

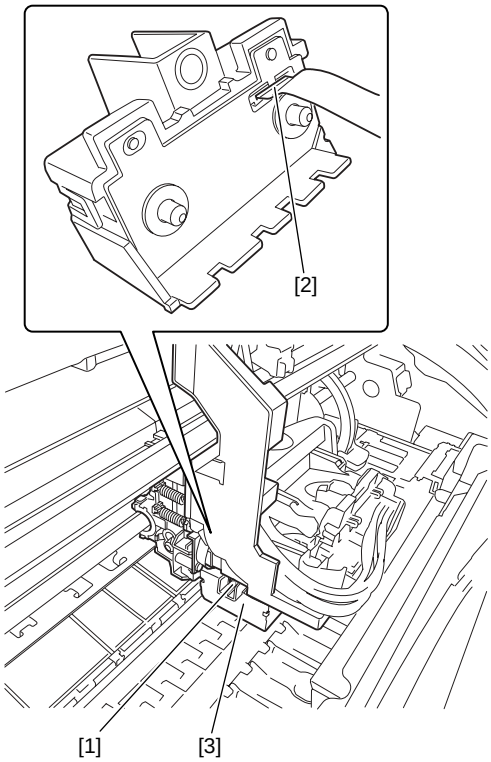


F-4-90

4.3.12 Multi Sensor

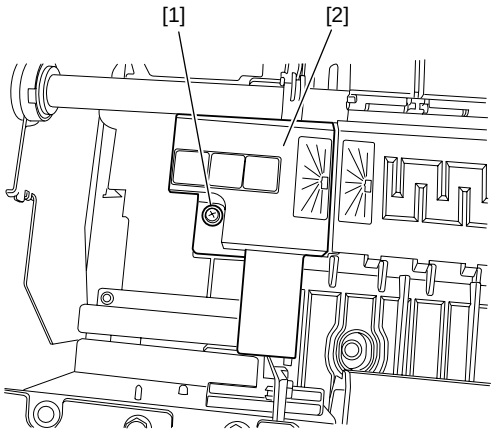
iPF750 / iPF755

a) Removing the Multi Sensor
1) Turn off the power, and then move the carriage onto the platen. Refer to "Disassembly/Reassembly > Points to Note on Disassembly and Reassembly > Opening the Cap/Moving the Wiper Unit".
2) Remove the printhead to protect it.
3) Remove one screw [1] and disconnect one connector [2], and then the multi sensor [3].



F-4-91

b) Removing the Multi Sensor Reference Plate
1) Remove one screw [1], and then remove the multi sensor reference plate [2].



F-4-92

c) Action following the replacement of the carriage unit/multi sensor
Because the distance between the multi sensor (in the carriage unit) and the nozzles (in the printhead) is varied from one unit to another, the printer as shipped has its optical axis corrected to adjust the image write position. When the carriage unit or multisensor has been replaced or disassembled and reassembled, they require adjustment.
Execute service mode under the following conditions:

* The multi sensor reference plate(QL2-3160-000:MOUNT, MULTI SENSOR REFERENCE) must be replaced at the same time whenever the carriage or the multi sensor is being replaced.

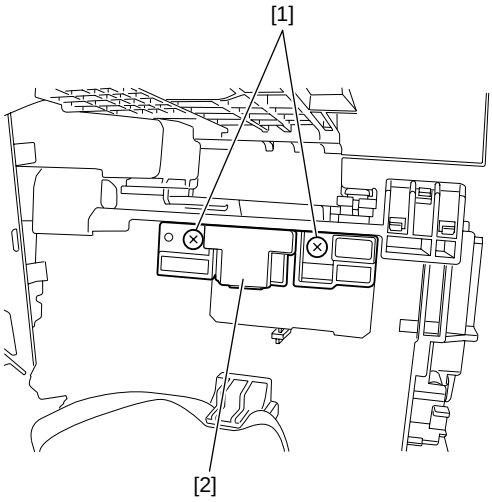
- Service mode : SERVICE MODE > ADJUST > GAP CALIB.

- Service mode : SERVICE MODE > ADJUST > PRINT PATTERN > OPTICAL AXIS
Media type : Photo glossy paper
Media size : Media having a width equal toor larger then that of A2-size paper

4.3.13 Linear Encoder

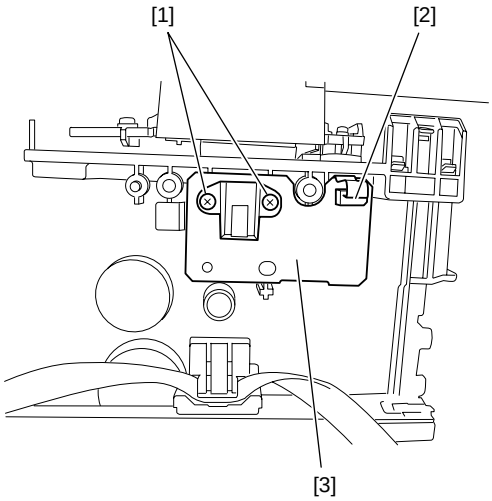
iPF750 / iPF755

a) Linear Encoder
Removing the Linear Encoder Sensor
1) Remove the carriage unit.
2) Remove two screws [1], and then remove the linear encoder sensor cover [2].



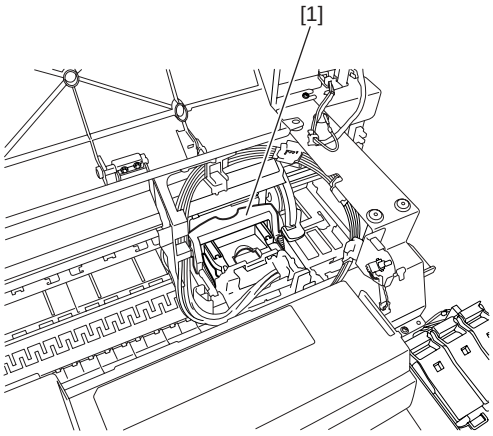
F-4-93

3) Remove two screws [1] and disconnect one connector [2], and then remove the linear encoder sensor [3].



F-4-94

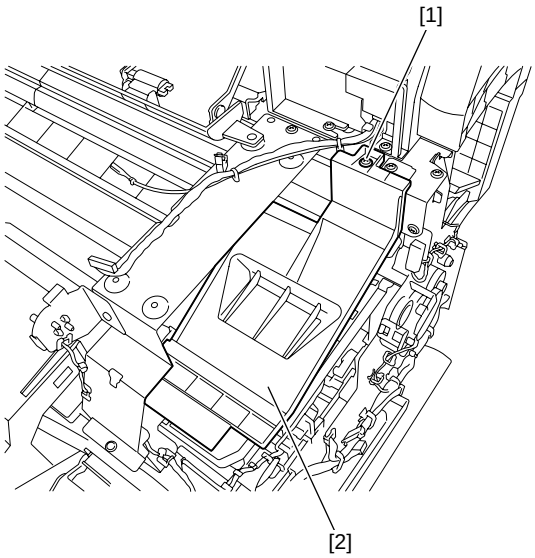
Removing the Linear Scale
1) Turn off the power, and then move the carriage [1] to HP side on the platen. Refer to "Disassembly/Reassembly > Points to Note on Disassembly and Reassembly > Opening the Cap/Moving the Wiper Unit".



F-4-95

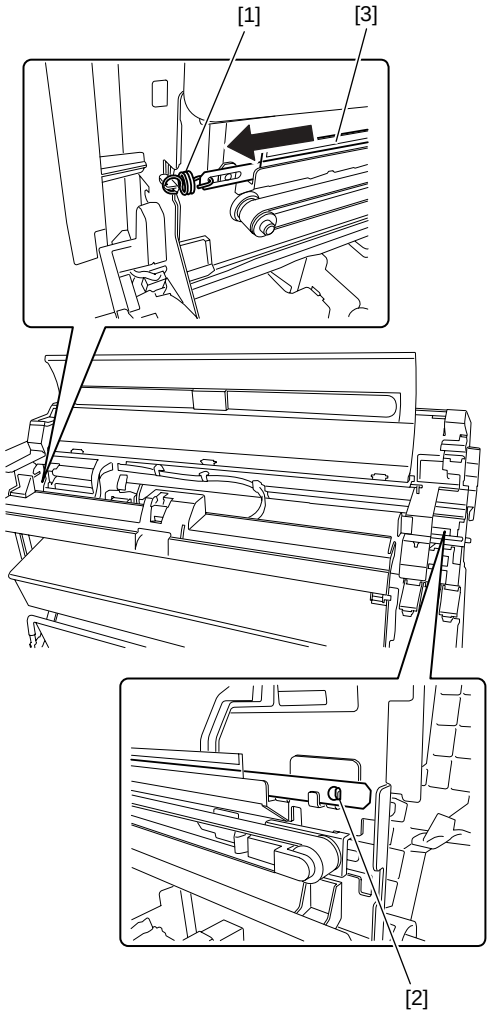
Memo:
When removing or installing the linear scale, move the carriage unit to the HP side on top of the platen to prevent the linear scale from touching the linear encoder sensor.

2) Remove the left/right cover and left/right ink tank cover.
3) Remove one screw [1], and then remove the carriage upper cover [2].



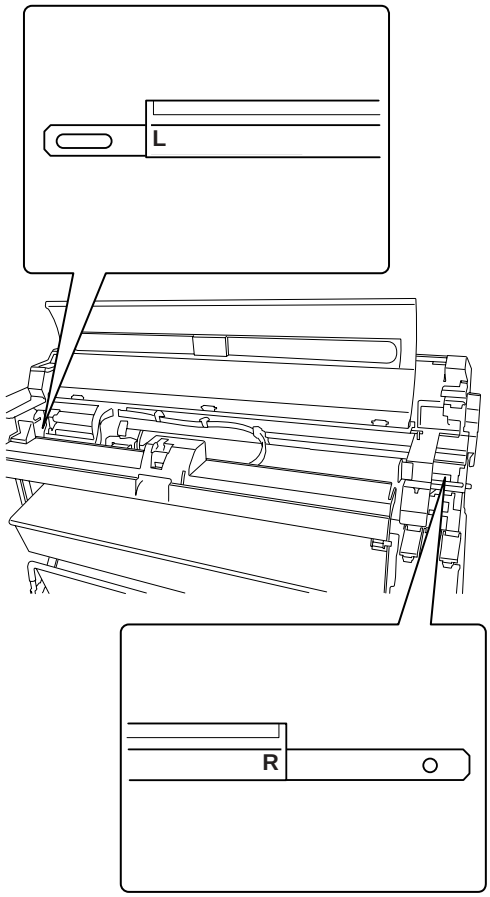
F-4-96

4) Remove the spring [1], release the notch from the protrusion [2] on the side plate, and then remove the linear scale [3] from the left side.



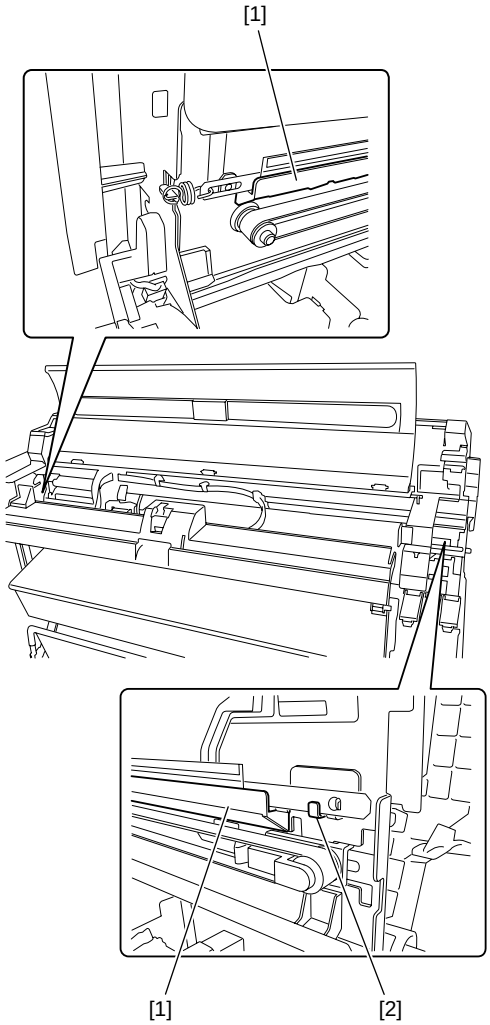
F-4-97

Precaution about Reinstallation of Linear Encoder Sensor/Linear Scale
- When removing or installing the linear scale, move the carriage unit to the HP side on top of the platen to prevent the linear scale from touching the linear encoder sensor.
- Reinstall the linear scale in such a manner that the "R" mark on the linear scale is on the right side of the printer and the "L" mark is on the left side of the printer when viewed from the front of the printer.



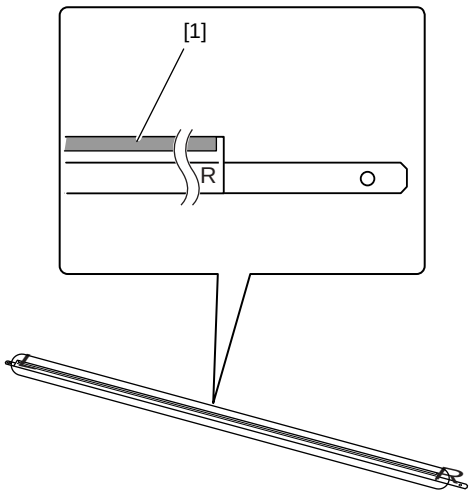
F-4-98

- Reinstall the linear scale in such a manner that it passes through the notch in the guide [1] and the notch [2] on the side plate.



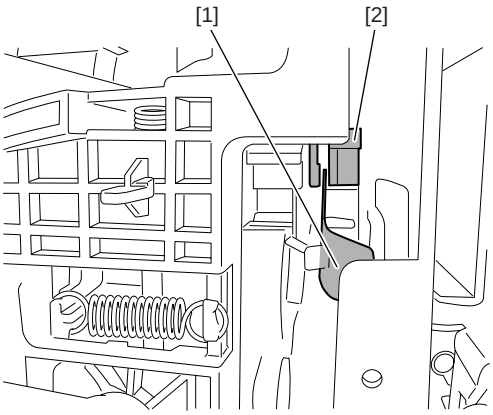
F-4-99

- Never touch the detection part [1] of the linear scale.



F-4-100

- Make sure that the linear scale [1] is in the detection zone of the linear encoder sensor [2].



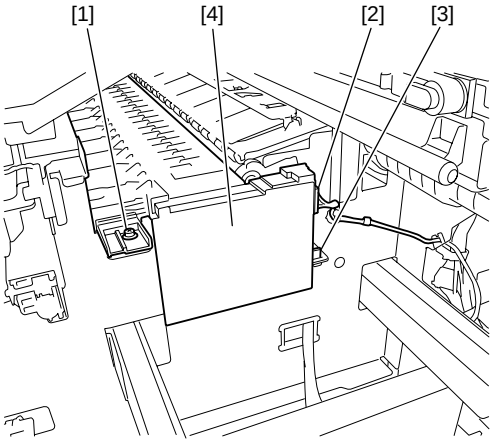
F-4-101

b) Action to take after removing or replacing the linear encoder sensor
After the carriage and carriage motor and carriage belt and linear encoder sensor has been removed or replaced, execute the following service mode.
Service mode: SERVICE MODE > ADJUST > CR MOTOR COG

4.3.14 Head Management Sensor

iPF750 / iPF755

a) Head Management Sensor
Removing the Head Management Sensor
1) Remove the purge unit.
2) Remove one screw [1] and one disconnect connector [2], release one protrusion [3], and then remove the head management sensor [4].



F-4-102

b) Procedure after replacing the head management sensor
Since the distance between the head management sensor and the carriage unit varies among printers, the optical axis is factory-adjusted to adjust the non-discharging detection position. When you have replaced the head management sensor or performed assembly/reassembly of surrounding parts that can change the distance between the head management sensor and the carriage unit, reasjustment is required.
Peform the readjustment in the service mode.

Service mode : SERVICE MODE > ADJUST > NOZZLE CHK POS.

4.3.15 PCBs

iPF750 / iPF755

Do not replace the main controller PCB and the maintenance cartridge relay PCB (ROM board) at the same time.
Both PCBs hold vital information, such as settings and a carriage drive time. Before either PCB is replaced, such information is temporarily saved through internal communication with the other PCB and is automatically written to the new PCB when it is installed. For this reason, the two PCBs cannot be replaced at the same time. To replace both PCBs, work in order of (a) > (b).
When the main controller PCB and maintenance cartridge relay PCB have been replaced with service parts, check that the latest version of firmware is installed in them.
If not, upgrade the firmware to the latest version.

a) Replacing the maintenance cartridge relay PCB (ROM board)

1) Turn off the power and disconnect the power plug.
2) Replace the maintenance cartridge relay PCB.
3) Reconnect the power plug and turn on the power while pressing the [Load] and [Navigate] keys. (Start the printer in PCB replacement mode.)
4) Release the key, but not before making sure that "Initializing" appears on the display. (The message lamp lights when printer enters PCB replacement mode.)
5) Wait until "REPLACE MODE" appears on the display.
6) Select MC BOARD and press the [OK] key.
7) Turn off the power, but not before making sure that "Power off" appears on the display.
8) Turn on the power.
9) Check the firmware version. If the firmware is not the latest version, upgrade the firmware to the latest version.

b) Replacing the main controller PCB

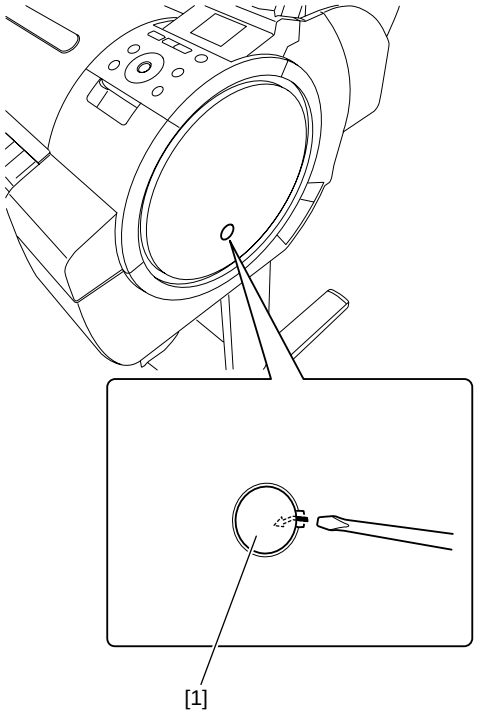
1) Turn off the power and disconnect the power plug.
2) Replace the main controller PCB.
3) Reconnect the power plug and turn on the power while pressing the [Load] and [Navigate] keys. (Start the printer in PCB replacement mode.)
4) Release the key, but not before making sure that "Initializing" appears on the display. (The message lamp lights when printer enters PCB replacement mode.)
5) Wait until "REPLACE MODE" appears on the display.
6) Select CPU BOARD and press the [OK] key.
7) Turn off the power, but not before making sure that "Power off" appears on the display.
8) Turn on the power.
9) Check the firmware version. If the firmware is not the latest version, upgrade the firmware to the latest version.

4.3.16 Opening the Cap/Moving the Wiper Unit

iPF750 / iPF755

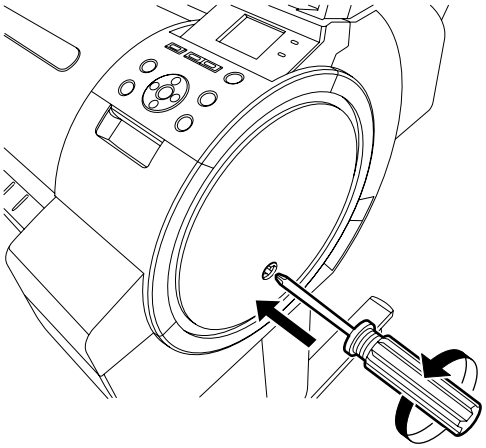
a) Opening the Cap/Releasing the Carriage Lock Pin by service mode
After entering the service mode, execute the following mode.
Service mode: SERVICE MODE > FUNCTION > CR UNLOCK

b) Opening the Cap/Releasing the Carriage Lock Pin/Moving the Wiper Unit manually
1) Insert a flat blade screwdriver in the slot on the left cover to remove the blanking cover [1].

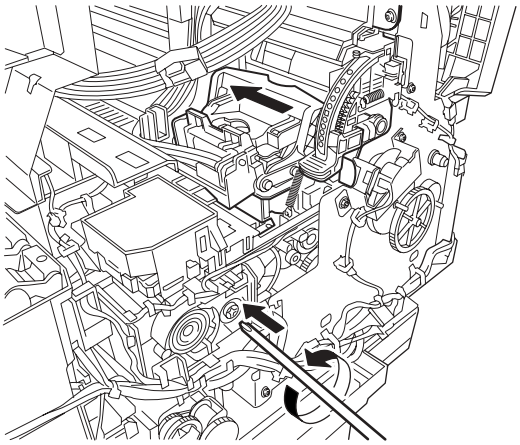


F-4-103

2) Insert a Phillips screw driver in the "+" groove on the purge unit and turn it counterclockwise. The cap and carriage lock pin lower, allowing the carriage to move. Also, the wiper unit can move.

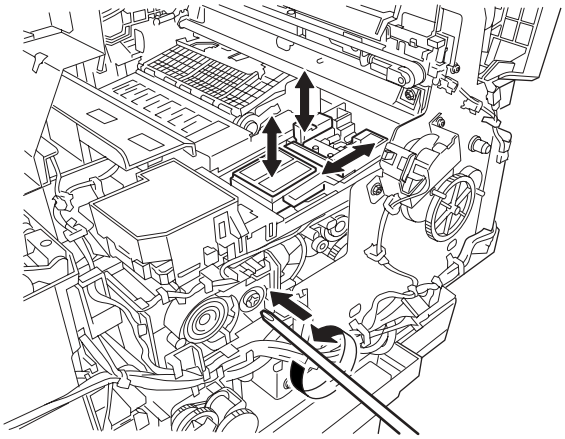


F-4-104



F-4-105

Memo:
Turning the screwdriver continuously repeats the vertical movement of the cap and carriage lock pin and the to-and-fro movement of the wiper unit. Visually check that the cap has been opened and the carriage lock pin has been released.

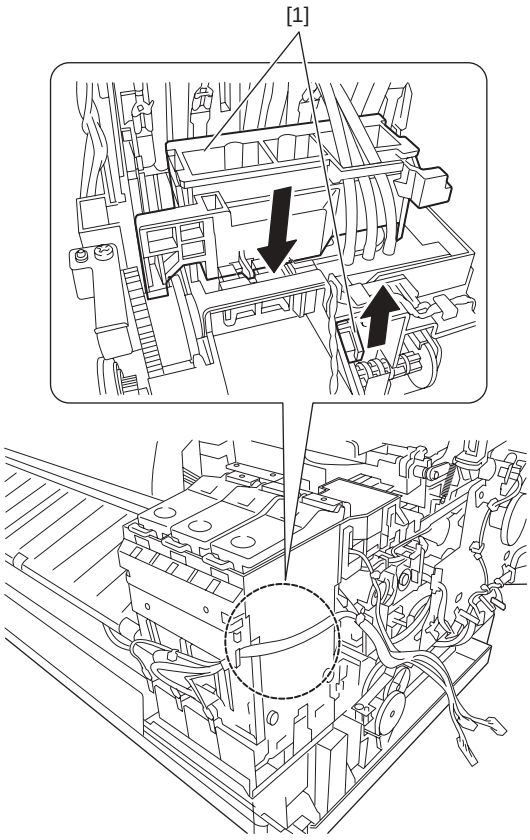


F-4-106

4.3.17 Opening/Closing the Ink Supply Valve/Ink Passage Valve

iPF750 / iPF755

a) Opening/Closing the Ink Supply Valve/Ink Passage Valve
1) Remove the ink tank cover.
2) Press down the lever [1] to open the ink supply valve and the ink passage valve.



F-4-107

- If the printhead fixer lever is released with the ink supply valve and ink passage valve to an ink tube open while the tube is filled with an ink, the ink in the tube could flow backward to the ink tank unit, leaking through the hollow needle in the ink tank.
- If the valve remains open, as on occurrence of the valve open/close error, remove the valve motor unit and (see Disassembly/Reassembly > Points to Note on Disassembly/Reassembly > Ink Tank Unit) and close the ink supply valve.

4.3.18 Draining the ink

iPF750 / iPF755

There are two ways to drain the ink passage of inks: automatic and manual.

⚠ Be sure to drain the ink from the ink passage to prevent ink leakage before disassembling any component of the ink passage or reshipping the printer.

1. Automatic Ink Drain
Execute Automatic Ink Drain by selecting "Set./Adj. Menu" > "Prep.MovePrinter" from the main menu.

⚠ Execute Automatic Ink Drain once again if the printer shuts down due to a power failure or any other trouble before the operation completes.

2. Manual Ink Drain
Drain the ink passage of inks manually if any electrical component in the printer fails or firmware malfunctions or if the printer fails to be powered on.
1) Remove left/right cover, left/right ink tank cover. See Disassembly/Reassembly > Points to Note on Disassembly/Reassembly > External Covers.
2) Remove the ink tanks.
3) Move the carriage to above the platen. See Disassembly/Reassembly > Points to Note on Disassembly/Reassembly > Opening the caps and moving the wiper unit.
4) Release the printhead fixer lever.
5) Open the ink supply valves/ink passage valves to allow the inks to flow into the ink tank unit waste ink tray.

4.4 Applying the Grease

4.4.1 Applying the Grease

iPF750 / iPF755

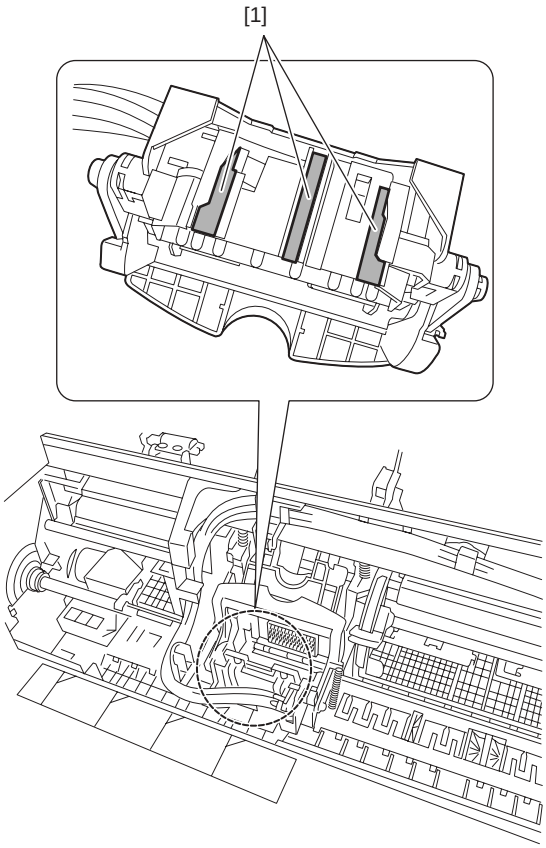
Apply the grease at the location shown below.
Smear the grease lightly and evenly with a flat brush.

Don't apply the grease to locations other than those designated. Unwanted grease may cause poor print quality, take particular care that grease does not get onto the wiper, cap, or the linear scale.

T-4-2

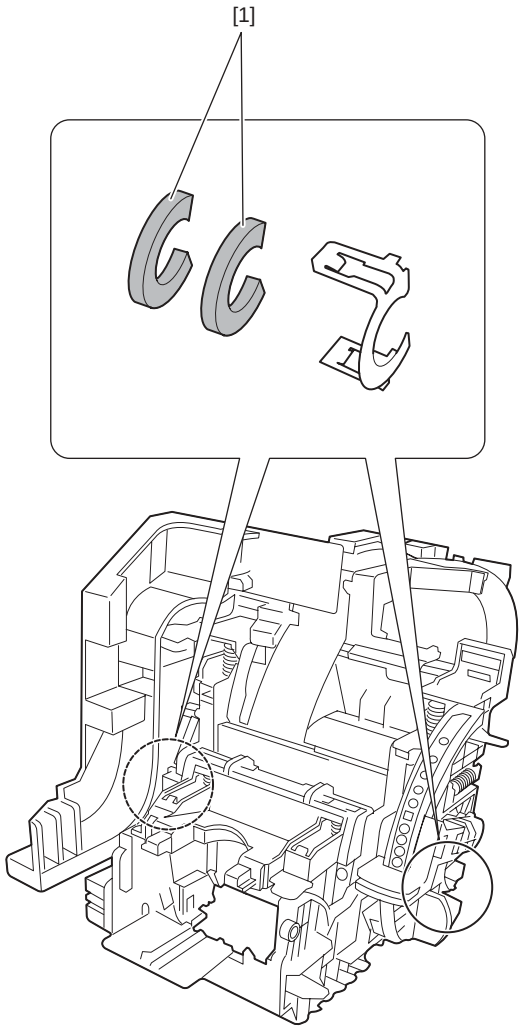
No.	Place	Kind	Quantity	Note
1	Joint Base Rib	Molykote PG-641	approx.8-20mg	
2	Shaft Cleaner	EU-1	soaks enough	
3	Upper Cover Hinge Catch	EU-1	approx.8-20mg	
	Roll Cover Slide Guid	EU-1	approx.8-20mg	
4	Contact between Pinch Roller Release Shaft and Pinch Roller	Molykote PG-641	approx.8-20mg	
	Pinch Roller Pressure Release Gear	Molykote PG-641	approx.8-20mg	
	Release lever	Molykote PG-641	approx.8-20mg	
	Bushing of Feed Roller	Molykote PG-641	approx.8-20mg	

1. Joint Base Rib [1]



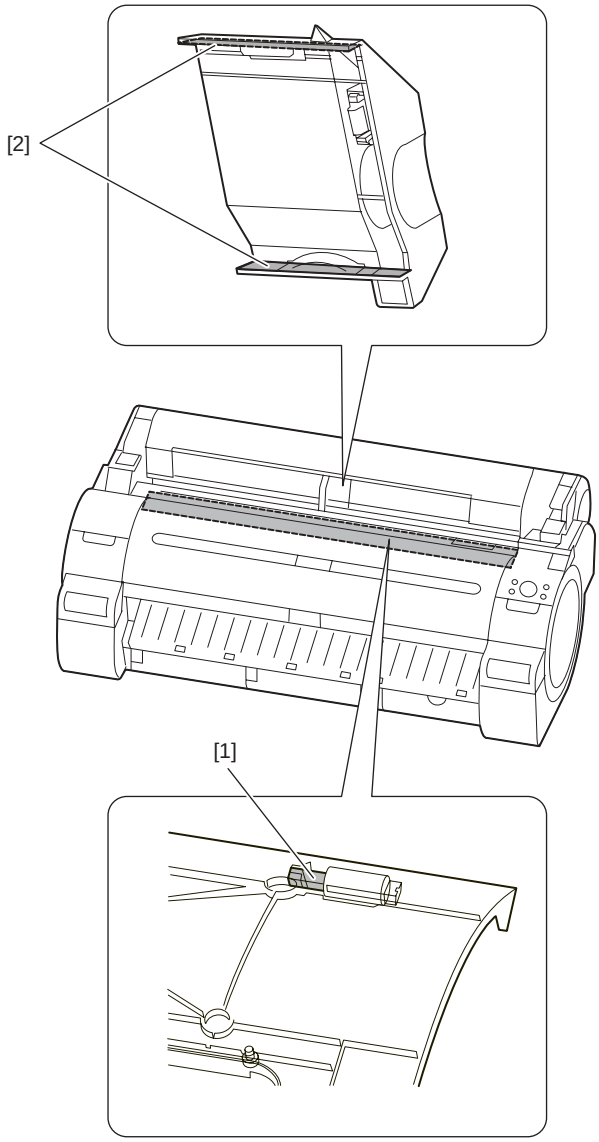
F-4-108

2. Shaft Cleaner [1]



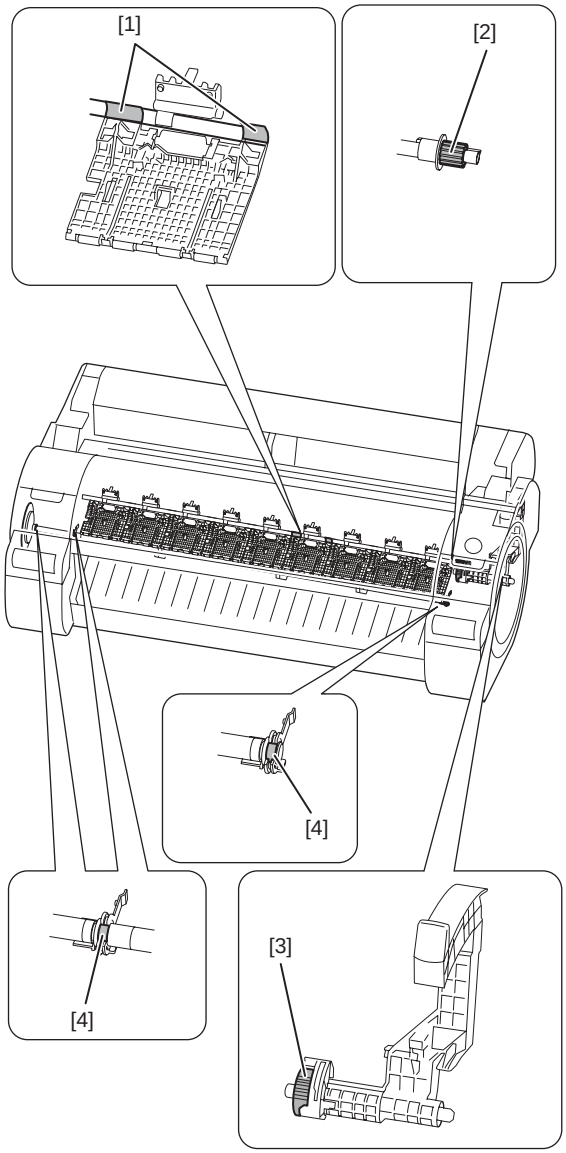
F-4-109

3. Upper Cover Hinge Catch [1]/Roll Cover Slide Guide [2]



F-4-110

4. Contact between Pinch Roller Release Shaft and Pinch Roller [1]/Pinch Roller Pressure Release Gear [2]/Release lever [3]/Bushing of Feed Roller [4]



F-4-111

4.5 Adjustment and Setup Items

4.5.1 Adjustment Item List

iPF750 / iPF755

The following adjustment procedures need to be performed when parts have been replaced or remove and then reinstalled:

T-4-3

Adjustment item	Adjustment timing
Multi sensor recalibration	Multi sensor replacement/removal
	Carriage unit replacement/removal
Adjusting feed roller eccentricity	Feed roller
	Feed roller encoder
Head management sensor recalibration	Head management sensor replacement/removal
	Carriage unit replacement/removal
Carriage motor recalibration	Carriage unit replacement/removal
	Carriage unit replacement/removal
	Carriage unit replacement/removal

4.5.2 Procedure after Replacing the Carriage Unit or Multi Sensor

iPF750 / iPF755

a) Note on replacing the carriage unit and the multi sensor
- The multi sensor reference plate(QL2-3160-000:MOUNT, MULTI SENSOR REFERENCE) must be replaced at the same time whenever the carriage or the multi sensor is being replaced.

b) Multi Sensor Recalibration
Because the distance between the multi sensor (in the carriage unit) and the nozzles (in each printhead) is varied from one unit to another, the printer has its optical axis corrected and paper gap adjustment sensor gain and calibration adjusted prior to shipment. When the carriage unit or multi sensor has been replaced, they should require adjustment.

Execute service mode under the following conditions to launch automatic adjustment:

1) Optical axis correction
- Service mode : SERVICE MODE > ADJUST > PRINT PATTERN > OPTICAL AXIS
Media type : Photo glossy paper
Media size : Media having a width equal toor larger then that of A2-size paper

2) Paper gap adjustment
- Service mode: SERVICE MODE > ADJUST > GAP CALIB.

c) Carriage Motor Adjustment
- After the carriage and carriage motor and carriage belt and linear encoder sensor has been removed or replaced, execute the following service mode.
Service mode: SERVICE MODE > ADJUST > CR MOTOR COG

4.5.3 Procedure after Replacing the Feed Roller or Feed Roller Encoder

iPF750 / iPF755

Feed roller eccentricity is factory-adjusted (correction of variation in the paper feed amount per rotation). It is necessary to adjust feed roller eccentricity after replacing the feed roller encoder or feed roller.
In the service mode, perform automatic adjustment of feed roller eccentricity.

Service mode : SERVICE MODE > ADJUST > PRINT PATTERN > LF TUNING
Media type : Photo glossy paper

If adjustment cannot be done properly by selecting "SERVICE MODE > ADJUST > PRINT PATTERN > LF TUNING" (auto adjustment), carry out manual adjustment.

Service mode SERVICE MODE > ADJUST > PRINT PATTERN > LF TUNING2
Media type: Gloss photo paper
Check the printed pattern and enter values for adjustment.

4.5.4 Procedure after Replacing the Head Management Sensor

iPF750 / iPF755

Since the distance between the head management sensor and the carriage unit varies among printers, the optical axis is factory-adjusted to adjust the non-discharging detection position. When you have replaced the head management sensor or performed assembly/reassembly of surrounding parts that can change the distance between the head management sensor and the carriage unit, readjustment is required
Perform the readjustment in the service mode.

Service mode : SERVICE MODE > ADJUST > NOZZLE CHK POS.

Chapter 5 MAINTENANCE

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5.1 Periodic Replacement Parts

5.1.1 Periodic Replacement Parts

iPF750 / iPF755

T-5-1

Level	Periodic Replacement part
User	None
Service Personnel	None

5.2 Consumable Parts

5.2.1 Consumable Parts

iPF750 / iPF755

T-5-2

	Consumables				Service Mode		Note
	Name	Part number	Q'ty	Life sheets/ A0	PARTS xx	States (Error Code)	
Service	CARRIAGE UNIT	QM3-5824-000	1	14000	CR-1/CR-4	OK/W1/W2	include the consumable parts of CR-2 or CR-3.
	FLEXIBLE CABLE UNIT	QM3-4580-000	1	14000	CR-2	OK/W1/W2	
	ENCODER SENSOR UNIT	QM3-4574-000	1	14000	CR-3	OK/W1/W2	
	SCALE, LINEAR	QC3-1501-000	1				
	PAD	QC3-1514-000	4				
	MULTI SENSOR UNIT	QM3-5831-000	1	14000	CR-5	OK/W1/W2	
	MOUNT, MULTI SENSOR REFERENCE	QL2-3160-000	1	14000	CR-1/CR-4/ CR-5	OK/W1/W2	replace with the carriage unit or the multi sensor unit at the same time.
	INK TUBE UNIT	QM3-5951-000	1	14000	SP-1	OK/W1/E144-4047	
	PURGE UNIT	QM3-5834-000	1	14000	PG-1	OK/W1/E141-4046	
	HEAD MANAGEMENT SENSOR UNIT	QM3-5956-000	1	14000	HMa-1	OK/W1/E194-404A	
	MOTOR, DC	QK1-5068-000	1	14000	MT-1		
	MOTOR, DC	QK1-5067-000	1	14000	PL-1		
	FAN UNIT	QM3-5854-000	1	14000	Mi-1	OK/W1/E146-4001	
	MIST FAN DUCT UNIT	QM3-5853-000	1	14000			
	CUTTER	QM3-5846-000	1	14000	CT-1	OK/W1/W2	
	ABSORBER, INK	QC3-1552-000	1	14000	WF-1	OK/W1/E146-4001	
	ABSORBER, INK	QC3-1808-000	1	14000	WF-1	OK/W1/E146-4001	
	WASTE INK BOX UNIT	QM3-5805-000	1	14000	WF-2	OK/W1/E146-4001	
User	See "Product Overview> Features> Consumables"						

After supplies have been replaced, execute [INITIALIZE] > [PARTS COUNTER] > [PARTS xx] in service mode to initialize (clear) the parts counter information.

5.3 Periodic Maintenance

5.3.1 Periodic Maintenance

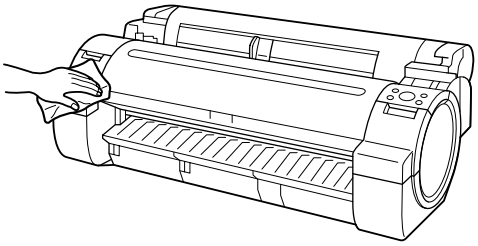
iPF750 / iPF755

T-5-3

Level	Periodic maintenance
User	Cleaning of ink mist and other substances(about once each month
Service personnel	None

a) Printer cleaning
To keep up with print quality and prevent troubles, clean the printer about once each month.

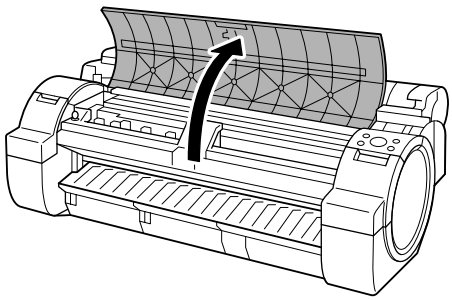
1) Turn off the printer power.
2) Remove the power cord and interface cable.
3) Wipe the external surfaces of the printer with a cloth moistened with water and then wrung tight and then dry them finally with a dry cloth.



F-5-1

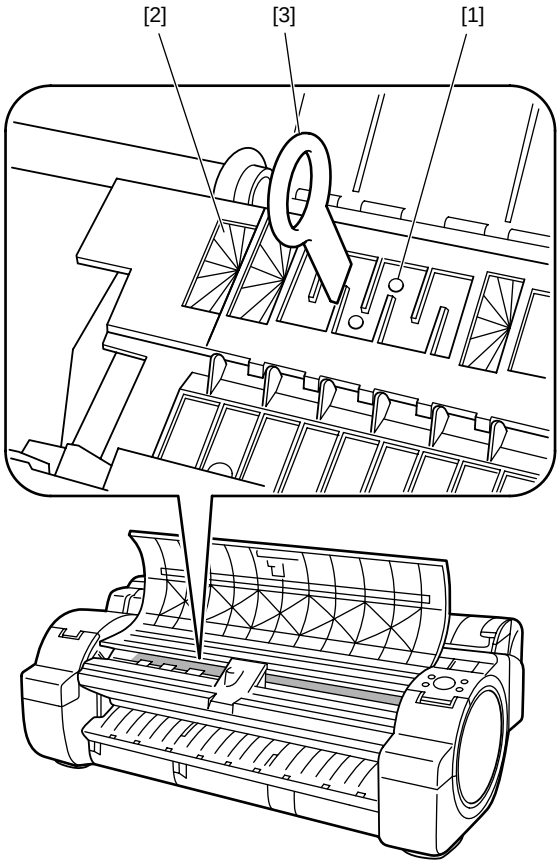
- Be sure to turn off the printer power and pull out the power cord from the outlet. If the power is accidentally turned on, contact with moving internal parts can result in injury.
- Do not use flammable solvents, such as thinner and benzine, on the printer. Solvents coming into contact with any electrical parts inside the printer could result in fires or electrical shock hazards.

4) Open the Upper Cover.



F-5-2

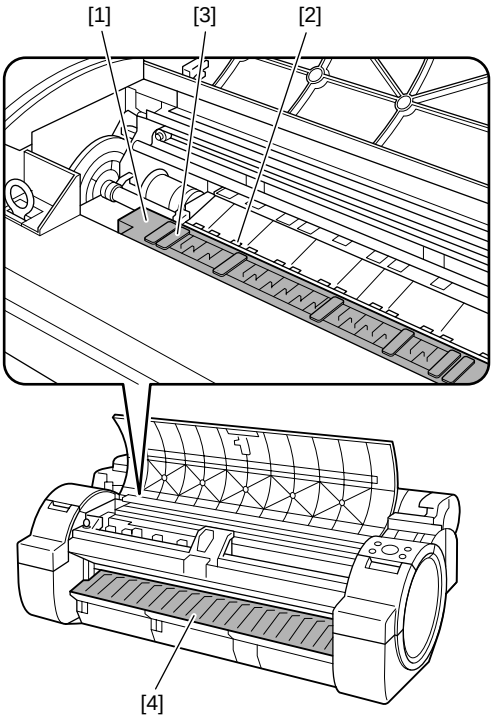
5) If paper dust has accumulated in the suction holes [1] on the Platen, the borderless printing ink grooves [2], use the included Cleaning Brush [3] to wipe it away.



F-5-3

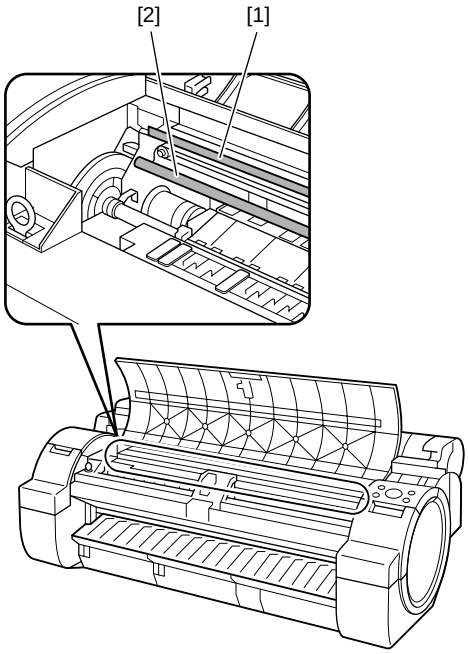
MEMO:
If the Cleaning Brush is dirty, rinse it in water.

4) Using a damp cloth that you have wrung out completely, wipe inside the Upper Cover to clean it. Wipe away any ink residue on all over the Platen [1], the Pinch Roller Unit [2], the Borderless Printing Ink Grooves [3], the Output Guide [4], and so on.



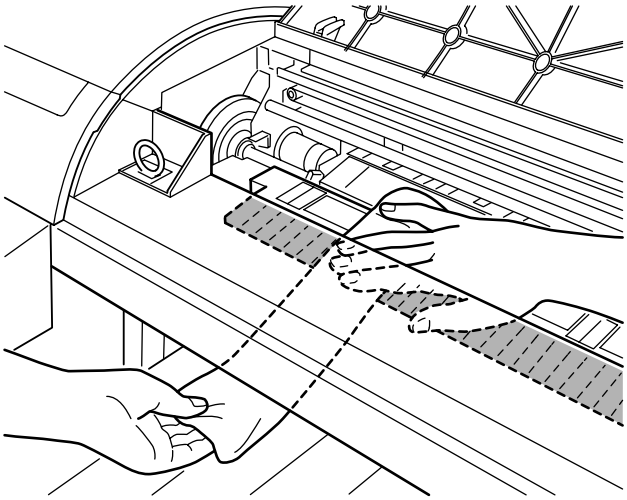
F-5-4

⚠
- Do not dry the interiors of the upper cover with a dry cloth. Electrostatic charges could make the internal components susceptible to dirt, resulting in degraded print quality.
- Do not use flammable solvents, such as thinner and benzine, on the printer. Solvents coming into contact with any electrical parts inside the printer could result in fires or electrical shock hazards.
- Do not touch linear scale [1] and carriage shaft [2].



F-5-5

MEMO:
When cleaning between the Platen and Output Guide, use a damp cloth that you have wrung out completely to wipe over the ejection slot and along grooves.



F-5-6

5) Close the upper cover.

Chapter 6 TROUBLESHOOTING

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6.1 Troubleshooting

6.1.1 Outline

6.1.1.1 Outline of Troubleshooting

iPF750 / iPF755

1. Outline
Troubles subject to troubleshooting are classified into those shown on the display (warning, error, and service call) and those not shown on the display.
The code of warning and error is shown by combining alphanumeric characters of eight digits and four digits.
The code of service call error is shown by the initial character of "E" and combining alphanumeric characters of three digits and four digits.
No code number is displayed when a warning occurs. Selecting [SERVICE MODE] > [DISPLAY] > [WARNING] allows you to check the warning log.

2. Precautions for Troubleshooting
1) Check the environmental conditions and the media used for printing.
2) Before performing troubleshooting, make sure that all connectors and cables are connected properly.
3) When servicing the printer with the external cover removed and the AC power supplied, be extremely careful to avoid electric shock and shorting electrical devices.
4) In the following sections, the troubleshooting steps are described such that the component related to the most probable cause of the problem will be repaired or replaced first, being followed by components with less problem probability. If multiple components have the same problem probability, the steps are described begging with the easiest one.
After performing each step, check to see if the problem has been resolved by making test prints. If the problem persists, proceed to the next step.
5) After completion of the troubleshooting, check that all connectors and cables have been reconnected and screws have been tightened firmly.
6) Whenever you have performed replacement or repair services, make test prints to check whether the problem has been resolved.

6.2 Version Up

6.2.1 Firmware Update Tool

iPF750 / iPF755

Use of the following tools allows you to update the firmware of the main controller incorporated in the printer.
- imagePROGRAF Firmware Update Tool
- L Printer Service Tool

1. imagePROGRAF Firmware Update Tool
imagePROGRAF Firmware Update Tool is the same as that for user.

Procedure:
1) Start imagePROGRAF Firmware Update Tool.
2) Place the printer in the online mode.
3) Transfer the firmware data to the printer according to the instructions shown on the display.
4) The data shown on the LCD on the operation panel changes and the firmware is updated automatically.
5) When firmware update is completed, the printer will start again.

File transfer route:
USB, network

2. L Printer Service Tool

Procedure:
1) Start L Printer Service Tool.
2) Place the printer in the online mode.
3) Specify the firmware file(.jdl) and then transfer it.
4) The data shown on the LCD on the operation panel changes and the firmware is updated automatically.
5) When firmware update is completed, the printer will start again.

File transfer route:
USB, network

6.3 Service Tools

6.3.1 Tool List

iPF750 / iPF755

T-6-1

General-purpose tools	Application
Long phillips scerewdriver	Inserting and removing screw
Phillips scerewdriver	Inserting and removing screw
Flat-head screwdriver	Removing the E-ring
Needle-nose pliers	Inserting and removing the spring parts
Hex key wrench	Inserting and removing hexagonal screws
Flat brush	Applying grease
Lint free paper	Wiping off ink
Rubber gloves	Preventing ink stains

T-6-2

Special-purpose tools	Application
Grease MOLYKOTE PG-641 (CK-0562-000)	Applying to specified locations
EU-1 (QY9-0037-000)	Soaking or applying to specified locations
Cover switch tool (QY9-0103-000)	Pressing the cover switch

Chapter 7 SERVICE MODE

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7.1 Service Mode

7.1.1 Service Mode Operation

iPF750 / iPF755

a) How to enter the Service mode
Enter service mode according to the following procedure:

1) Turn off the printer power.
2) Turn on the power while pressing the [Load] key and [Navigate] key.
 * Keep pressing the above keys until "Initializing" is displayed.
3) "S" appears at the top right of the display.
4) Press the ◄ key or ► key to choose the [Set./Adj. Menu] and press the [OK] key.
 "SERVICE MODE" appears in the menu list and the MESSAGE LED flashes.
5) Press the ▲ key or ▼key to choose "SERVICE MODE" and press the [OK] key.
 * Service mode is added to the [Set./Adj. Menu]. Service mode can be entered even when an error occurs (an error message is displayed) by turning off the power once and then pressing the above keys.

b) How to exit the Service mode
Turn off the printer.

c) Key operation in the service mode
- Selecting menus and paremeters: ◄ or ► key
- Going to the next lower-level menu: ▼ key
- Going to the previous higher-level menu: ▲ key
- Determining a selected menu or parameter:[OK] key

7.1.2 Map of the Service Mode

iPF750 / iPF755

The hierarchy of menus and parameters in the Service Mode is as shown below.

T-7-1

First Level	Second Level	Third Level	Fourth Level	Fifth Level	Sixth Level
DISPLAY	PRINTINF	YES/NO	: Select YES to print		
	SYSTEM	S/N			
		TYPE			
		LF TYPE			
		TMP			
		RH			
		SIZE LF			
		SIZE LF			
		SIZE CR			
		SIZE CR			
		AFTER INST			
	HEAD	S/N			
		LOT			
	INK	C			

		BK			
	WARNING	01			

		20			
	ERROR	01			

		20			
	JAM	01			

		05			
	INK CHECK	0 0 0 0 0 0			
I/O DISPLAY	I/O DISPLAY 1				
	I/O DISPLAY 2				
	I/O DISPLAY 3				
ADJUST	PRINT PATTERN	NOZZLE 1	: Press the [OK] button to execute		
		OPTICAL AXIS	: Press the [OK] button to execute		
		LF TUNING			
		LF TUNING 2			
	HEAD ADJ.	MANUAL HEAD ADJ	DETAIL	: Press the [OK] button to execute	
			BASIC	: Press the [OK] button to execute	
		ADJ. SETTING	A	A-1	: Adjustment value entry

				A-24	: Adjustment value entry

			F	F-1	: Adjustment value entry
			SAVE SETTINGS	YES/NO	
		RESET SETTINGS	YES/NO		
	NOZZLE CHK POS.	YES/NO			
	GAP CALIB.	YES/NO			
	CHANGE LF TYPE	0/1			
	CR REG	EXECUTE	YES/NO		
		RESET	YES/NO		
	CR MOTOR COG	YES/NO			

T-7-2

First Level	Second Level	Third Level	Fourth Level	Fifth Level
FUNCTION	CR UNLOCK	YES/NO		
	CR LOCK	YES/NO		
	PG CHECK	YES/NO		
	CR AUTO SCAN	YES/NO		
	CR SCAN COUNT	1	: Press the [OK] button to set	

		30	: Press the [OK] button to set	
	CR SCAN SIZE	1	: Press the [OK] button to set	

		5	: Press the [OK] button to set	
	CR SCAN SPEED	1	: Press the [OK] button to set	

		5	: Press the [OK] button to set	
	STIRRING CHECK	YES/NO		
	OPT SENS OUTPUT	YES	OUTPUT0	

			OUTPUT6	
		NO		
	NOZZLE CHK	YES/NO		
	NOZZLE INF	C		

		BK		
	MEMORY CHK	DDR		
		EEP		
	HEAD CNT CHK	YES/NO		
REPLACE	CUTTER	YES/NO		

T-7-3

First Level	Second Level	Third Level	Fourth Level	Fifth Level
COUNTER	PRINTER	LIFE TTL		
		LIFE ROLL		
		LIFE CUTSHEET		
		LIFE A		

		LIFE F		
		POWER ON		
		W-INK		
		CUTTER		
		WIPE		
		SLEEP ON		
	CARRIAGE	PRINT		
		DRIVE		
		CR COUNT		
		CR DIST.		
		PRINT COUNT		
	PURGE	CLN-A-1		
		CLN-A-2		
		CLN-A-3		
		CLN-A-6		
		CLN-A-7		
		CLN-A-10		
		CLN-A-11		
		CLN-A-15		
		CLN-A-16		
		CLN-A-17		
		CLN-A-TTL		
		CLN-M-1		
		CLN-M-4		
		CLN-M-5		
		CLN-M-6		
		CLN-M-TTL		
	CLEAR	CLR-INK CONSUME		
		CLR-MTC EXC.		
		CLR-HEAD EXC.		
		CLR CR-1 EXC.		
		CLR CR-2 EXC.		
		CLR CR-3 EXC.		
		CLR CR-4 EXC.		
		CLR CR-5 EXC.		
		CLR SP-1 EXC.		
		CLR PG-1 EXC.		
		CLR HMa-1 EXC.		
		CLR MT-1 EXC.		
		CLR PL-1 EXC.		
		CLR Mi-1 EXC.		
		CLR CT-1 EXC.		
		CLR WF-1 EXC.		
		CLR WF-2 EXC.		
		CLR-FACTORY CNT.		

T-7-4

First Level	Second Level	Third Level	Fourth Level	Fifth Level
COUNTER	EXCHANGE	MTC EXC.		
		HEAD EXC.		
		BOARD EXC.(M/B)		
		CR-1 EXC.		
		CR-2 EXC.		
		CR-3 EXC.		
		CR-4 EXC.		
		CR-5 EXC.		
		SP-1 EXC.		
		PG-1 EXC.		
		HMa-1 EXC.		
		MT-1 EXC.		
		PL-1 EXC.		
		Mi-1 EXC.		
		CT-1 EXC.		
		WF-1 EXC.		
		WF-2 EXC.		
	DETAIL-CNT	MOVE PRINTER		
		N-INK CHK(C)		

		N-INK CHK(BK)		
		MEDIACONFIG-CNT		
	INK-USE1	INK-USE1(C)		

		INK-USE1(BK)		
		INK-USE1(TTL)		
		N-INK-USE1(C)		

		N-INK-USE1(BK)		
		N-INK-USE1(TTL)		
	INK-USE2	INK-USE2(C)		

		INK-USE2(BK)		
		INK-USE2(TTL)		
		N-INK-USE2(C)		

		N-INK-USE2(BK)		
		N-INK-USE2(TTL)		
	INK-EXC	INK-EXC(C)		

		INK-EXC(BK)		
		INK-EXC(TTL)		
		N-INK-EXC(C)		

		N-INK-EXC(BK)		
		N-INK-EXC(TTL)		

T-7-5

First Level	Second Level	Third Level	Fourth Level	Fifth Level
COUNTER	MEDIA 1	NAME		
		TTL		
		TTL		
		ROLL		
		ROLL		
		CUTSHEET		
		CUTSHEET		

	MEDIA 7	NAME		
		TTL		
		TTL		
		ROLL		
		ROLL		
		CUTSHEET		
		CUTSHEET		
	MEDIA OTHER	NAME		
		TTL		
		TTL		
		ROLL		
		ROLL		
		CUTSHEET		
		CUTSHEET		
	MEDIASIZE1 ROLL	P-SQ 36-44		
		P-SQ 36-44		
		P-SQ 24-36		
		P-SQ 24-36		
		P-SQ 17-24		
		P-SQ 17-24		
		P-SQ -17		
		P-SQ -17		
		P-CNT 36-44		
		P-CNT 24-36		
		P-CNT 17-24		
		P-CNT -17		
	MEDIASIZE2 ROLL	D-SQ 36-44		
		D-SQ 36-44		
		D-SQ 24-36		
		D-SQ 24-36		
		D-SQ 17-24		
		D-SQ 17-24		
		D-SQ -17		
		D-SQ -17		
		D-CNT 36-44		
		D-CNT 24-36		
		D-CNT 17-24		
		D-CNT -17		

T-7-6

First Level	Second Level	Third Level	Fourth Level	Fifth Level
COUNTER	MEDIASIZE1 CUT	P-SQ 36-44		
		P-SQ 36-44		
		P-SQ 24-36		
		P-SQ 24-36		
		P-SQ 17-24		
		P-SQ 17-24		
		P-SQ -17		
		P-SQ -17		
		P-CNT 36-44		
		P-CNT 24-36		
		P-CNT 17-24		
		P-CNT -17		
	MEDIASIZE2 CUT	D-SQ 36-44		
		D-SQ 36-44		
		D-SQ 24-36		
		D-SQ 24-36		
		D-SQ 17-24		
		D-SQ 17-24		
		D-SQ -17		
		D-SQ -17		
		D-CNT 36-44		
		D-CNT 24-36		
		D-CNT 17-24		
		D-CNT -17		
	HEAD DOT CNT. 1	C		

		BK		
		TTL		
	HEAD DOT CNT. 2	C		

		BK		
		TTL		
	PARTS CNT.	COUNTER CR-1	OK/W1/W2/E	
			1:	
			2:	
			3:	
			4:	

		COUNTER WF-2	OK/W1/W2/E	
			1:	
			2:	
			3:	
			4:	

T-7-7

First Level	Second Level	Third Level	Fourth Level	Fifth Level	Sixth Level
SETTING	Pth	ON/OFF			
	RTC	DATE	XXXX/XX/XX	: Date entry	
		TIME	XX:XX	: Time entry	
	PV AUTO JUDGE	ON/PFF			
	NETWORK	CERTIFICATE	CA-CERTIFICATE	VALIDITY	YYYY/MM/DD
	E-RDS	E-RDS SWITCH	ON/OFF		
		UGW ADDRESS	http://XXX		
		UGW PORT	XXXXX		
		COM TEST	YES		
		COM-LOG			
	HEAD DOT INF	ON/OFF			
INITIALIZE	WARNIG	: Press the [OK] button to clear			
	ERROR	: Press the [OK] button to clear			
	ADJUST	: Press the [OK] button to clear			
	W-INK	: Press the [OK] button to clear			
	CARRIAGE	: Press the [OK] button to clear			
	PURGE	: Press the [OK] button to clear			
	INK-USE CNT	: Press the [OK] button to clear			
	CUTTER-CHG-CNT	: Press the [OK] button to clear			
	W-INK-CHG CNT	: Press the [OK] button to clear			
	HEAD-CHG CNT	: Press the [OK] button to clear			
	HDD BOX PASS.	ALL FOLDERS	: Press the [OK] button to clear		
		FOLDER 1	: Press the [OK] button to clear		

		FOLDER 29	: Press the [OK] button to clear		
	PARTS-CHG CNT	PARTS CR-1	: Press the [OK] button to clear		

		PARTS WF-2	: Press the [OK] button to clear		
	PARTS COUNTER	PARTS CR-1	: Press the [OK] button to clear		

		PARTS WF-2	: Press the [OK] button to clear		
	USER SETTEING	YES/NO			
	CA-KEY	YES/NO			
	ERDS-DAT	YES/NO			

7.1.3 Details of Service Mode

iPF750 / iPF755

This section provides details of the Service mode menu.

a) DISPLAY
Displays and prints the printer information.

1) PRINF INF
Prints adjustment values in the User menu, [DISPLAY] and [COUNTER] parameters on A4-size or lager paper.
When a roll media is used, the layout is optimized according to the media width.

2) SYSTEM
Displays the printer information shown below.

T-7-8

Display	Description	Unit
S/N	Serial number of printer	-
TYPE	Type setting on main controller PCB * iPF755/750 is represented by 36".	-
LF TYPE	Feed roller type: 0 or 1	-
TMP	Ambient temperature	centigrade degrees
RH	Ambient humidity	%
SIZE LF	Detected size of loaded media (feed direction) 0 is always detected for the roll media.	mm/inch
SIZE CR	Detected size of loaded media (carriage scan direction)	mm/inch
AFTER INST.	Number of days since initial installation	Days

3) HEAD
Displays the following EEPROM information of the printhead.

T-7-9

Display	Description
S/N	Serial number of printhead
LOT	Lot number of printhead

4) INK
Displays the numbers of days passed since installation of the following ink tanks.

T-7-10

Display	Description	Unit
BK	Number of days passed since the BK ink tank was installed	Days
MBK	Number of days passed since the MBK ink tank was installed	Days
MBK2	Number of days passed since the MBK ink tank was installed	Days
C	Number of days passed since the C ink tank was installed	Days
M	Number of days passed since the M ink tank was installed	Days
Y	Number of days passed since the Y ink tank was installed	Days

5) WARNING
Displays the warning history (up to 20 events). The newest event has the smallest history number.

6) ERROR
Displays the error history (up to 20 events). The newest event has the smallest history number.

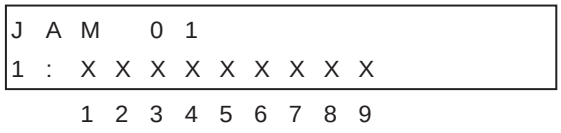
7) JAM
Displays log of jams that have occurred (up to five events). The newest event has the smallest history number.

Indicates the date and time of jam and error code. "0000" is displayed if there is no log.

F-7-1

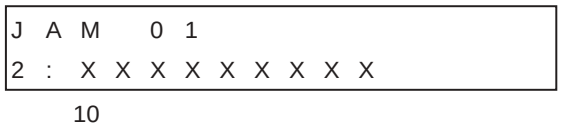
Press the ▼ key to display detail information.

Press the ◄ key or ► key to navigate among detail information display 1 to 4.
Detail information display 1



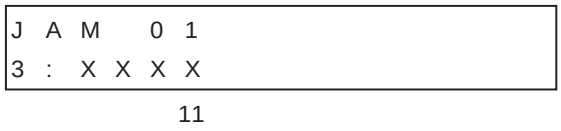
F-7-2

Detail information display 2



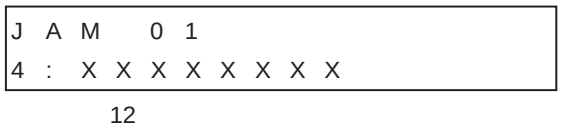
F-7-3

Detail information display 3



F-7-4

Detail information display 4



F-7-5
T-7-11

Display	Description	LCD display contents
1	Jam type	1:Carriage error, 2:Jam, 3:Feed failure (delay), 4:Cut failure, 0:Unknown
2	Media	1:Roll media, 2:Cut sheet, 0:Unknown
3	Jam timing	1:Feed, 2:Print, 3:Eject, 0:Unknown
4	Media width detection	1:ON, 2:OFF, 0:Unknown
5	Head height	SL:1.0mm, L:1.3mm, M1:1.8mm, M2:2.0mm, M3:2.2mm, 0:Unknown
6	Platen shutter position	1:Fully close, 2:HP side only open, 3:1/4 open, 4:1/2 open, 5:3/4 open, 6:Fully open, 0:Unknown
7	Cut mode setting	1:User cut, 2:Eject cut, 3:Auto cut, 0:Unknown
8	Environment	Display Media Information Tool's environment settings A to F according to Temperature/Humidity Detection Sensor, 0:Unknown
9	Borderless printing setting	1:Bordered printing, 2:Borderless printing, 0:Unknown
10	Print mode	Display print mode, 0:Unknown
11	Media siz	Display media size, 0:Unknown
12	Media name	Display media name, 0:Unknown

8) INK CHECK
Displays the history of execution of turning off the remaining ink level detection (by using the refilled ink tank) in the order of C, M, Y, MBK, MBK2 and BK.
0: No execution
1: Executed at least once

b) I/O DISPLAY
The information of each sensor and switch is shown in the display.

Sensor and switch status is shown in the display.
ON=1 OFF or not used=0
ON = 1
OFF or not used = 0

Screen 1

T-7-12

I	/	O		D	I	S	P	L	A	Y		1				Upper row
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Lower row
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	(Display position)

Screen 2

T-7-13

I	/	O		D	I	S	P	L	A	Y		2				Upper row
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Lower row
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	(Display position)

Screen 3

T-7-14

I	/	O		D	I	S	P	L	A	Y		3				Upper row
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Lower row
33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	(Display position)

Screen 1, Screen 2 and Screen 3 are selectable with the ◄ and ► keys.
These screens display the associated sensor status as listed in the table below.

T-7-15

Display position	Sensor name	LCD display contents
1	Pump Cam Sensor	0:Sensor ON, 1:Sensor OFF
2	Ink supply valve open/closed detection sensor (R)	0:Sensor OFF, 1:Sensor ON
3	(Not Used)	-
4	(Not Used)	
5	(Not Used)	-
6	Lift cam sensor	0:Sensor ON, 1:Sensor OFF
7	Feed roller HP sensor	0:Sensor ON, 1:Sensor OFF
8	Upper cover lock switch	0:Cover close, 1:Cover open
9	(Not Used)	0:Cover open, 1:Cover close
10	Ink tank cover switch (R)	0:Cover open, 1:Cover close
11	Ink tank cover switch (L)	0:Cover open, 1:Cover close
12	(Not Used)	-
13	(Not Used)	-
14	(Not Used)	-
15	(Not Used)	-
16	(Not Used)	-
17	(Not Used)	-
18	(Not Used)	-
19	(Not Used)	-
20	Cutter HP sensor	0:Sensor ON, 1:Sensor OFF
21	Cutter left position sensor	0:Sensor ON, 1:Sensor OFF
22	Carriage HP sensor	0:Sensor ON, 1:Sensor OFF
23	(Not Used)	-
24	Paper detection sensor	0:Media loaded, 1:No media
25	(Not Used)	-
26	(Not Used)	-
27	(Not Used)	-
28	(Not Used)	-
29	(Not Used)	-
30	Ink supply valve open/closed detection sensor (L)	0:Sensor OFF, 1:Sensor ON
31	Ink Passage valve open/closed detection sensor (R)	0:Sensor ON, 1:Sensor OFF
32	Ink Passage valve open/closed detection sensor (L)	0:Sensor ON, 1:Sensor OFF
33	Release lever lock sensor	0:Sensor ON, 1:Sensor OFF
34	Pinch roller pressure release switch	0:Realeased, 1:Pressured
35	Shutter HP sensor	0:Sensor OFF, 1:Sensor ON
36	(Not Used)	-
37	(Not Used)	-
38	(Not Used)	-
39	(Not Used)	-
40	(Not Used)	-
41	Fexible cable connection detection (J3601 pin no.50)	0:Connect, 1:Disconnect
42	Fexible cable connection detection (J3601 pin no.1)	0:Connect, 1:Disconnect
43	Fexible cable connection detection (J3602 pin no.50)	0:Connect, 1:Disconnect
44	Fexible cable connection detection (J3602 pin no.1)	0:Connect, 1:Disconnect
45	(Not Used)	-
46	(Not Used)	-
47	(Not Used)	-
48	(Not Used)	-

c) ADJUST
Performs adjustments and prints the adjustment and check patterns necessary for adjusting the printer parts.

1) PRINT PATTERN

T-7-16

Display	Description
NOZZLE 1	Prints the nozzle check pattern by single direction/ single pass without using the non-discharging back up. It is used to check for the non-discharging nozzles. - Media size: A4 - Media type: any
OPTICAL AXIS	Prints the pattern and adjusts the optical axis of the multi sensor. For details, refer to "Disassembly/Reassembly" > "Adjustment and Setup Items" > "Procedure after replacing the carriage unit or multi sensor". - Media type: photo glossy paper
LF TUNING	Carry out automatic correction of eccentricity of the feed roller. For more details, refer to "Disassembly/Reassembly" > "Adjustment and Setup Items" > "Procedure after replacing the feed roller and reed roller encoder". - The media type is "gloss photo paper".
LF TUNING 2	Carry out manual correction of eccentricity of the feed roller. For more details, refer to "Disassembly/Reassembly" > "Adjustment and Setup Items" > "Procedure after replacing the feed roller and reed roller encoder". - The media type is "gloss photo paper".

2) HEAD ADJ.
Set or initialize the registration adjustment values of each printheads.

T-7-17

Display			Description
MANUAL HEAD ADJ	DETAIL		Prints the detail patterns for the manual head adjustment. After printing, the mode will change to [ADJ. SETTING]. Check the printed patterns and input the set values.
	BASIC		Prints the basic patterns for the manual head adjustment. After printing, the mode will change to [ADJ. SETTING]. Check the printed patterns and input the set values.
ADJ. SETTING	A to F	A-1 to F-2	This mode is to input the registration adjustment values. It is possible to return the values to the former one by printing the status print before changing the value.
	SAVE SETTINGS		Save the registration adjustment values that has been input.
RESET SETTINGS			Initialize the registration adjustment values (to 0).

3) NOZZLE CHK POS.
This mode for adjusting the optical axis of the head management sensor. For details, refer to "Disassembly/Reassembly" > "Adjustment and Setup Items" > "Procedure after replacing the head management sensor".

4) GAP CLIB.
This mode measures the gap between the printhead and media by multi sensor and corrects the calibration value.

5) CHANGE LF TYPE
Change the type of the feed roller.
0: Old feed roller
1: New feed roller

6) CR REG
Executes automatic head adjustment.
Make this adjustment if the resist remains partially misregistered after user-mode head adjustment.
EXECUTE: Execute automatic head adjustment.
RESET: Reset the resist adjustment value (0).

- Applicable media size is A2 (17inch) or larger.
- Applicable media type is photo glossy paper

If an error message appears when performing CR REG, check the following.
Replace the multi sensor if the error recurs after checking and performing CR REG again.
<CHECK>
1. Check for non-discharging of the printhead and dirty media, and replace the printhead and/or media if necessary.
2. Perform [Head Cleaning A].
3. Perform [Head Posi. Adj.]-[Auto].

7) CR MOTOR COG
Adjust the carriage motor rotation.
Perform in the following cases:
- When removing/attaching or replacing the carriage or carriage belt.
- When replacing the carriage motor or linear encoder sensor.
- When there is excessive load on the carriage (such as when jamming)

If the following error message appears when performing CR MOTOR COG, check that carriage and carriage belt are installed properly and clean the rail shaft. If the error still occurs, replace the carriage motor.

F-7-6

d) FUNCTION

1) CR UNLOCK
Unlocks the carriage.
When CR UNLOCK is performed, the carriage lock pin is lowered and the carriage can be moved.

2) CR LOCK
Locks the carriage.
When CR LOCK is performed, the carriage lock pin is raised and the carriage is locked.

3) PG CHECK
Initializes the purge unit.

4) CR AUTO SCAN
The carriage scans.
When CR AUTO SCAN is performed, the carriage scans with the count, width, and speed set with CR SCAN COUNT/CR SCAN SIZE/CR SCAN SPEED.

5) CR SCAN COUNT
Sets the number of scans (1 to 30) to be performed with CR AUTO SCAN.
Default:1

6) CR SCAN SIZE
Sets the scan width to be performed with CR AUTO SCAN.
1:A4, 2:A3, 3:A2, 4:24inch, 5:36inch
Default:5

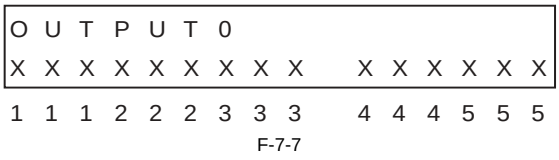
7) CR SCAN SPEED
Sets the speed of the scan to be performed with CR AUTO SCAN.
1:12.5, 2:25, 3:33.3, 4:40, 5:50 (Unit: inch/sec)
Default:1

MEMO:
The settings set with CR SCAN COUNT, CR SCAN SIZE, CR SCAN SPEED are reset to default when the power is reset.

8) STIRRING CHECK
Agitates the ink tank.

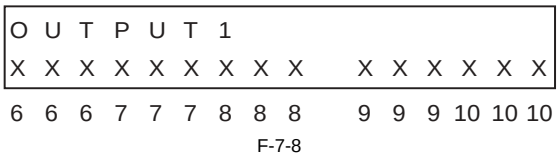
9) OPT SENS OUTPUT
Displays the values (analog value) multi sensor detected from the media.
You can confirm the amount of margin the media has with the values read with the multi sensor and the status of the multi sensor by comparing the values with the threshold.

Press the ◄ key or ► key to navigate among OUTPUT 0 to 6 windows.
OUTPUT 0



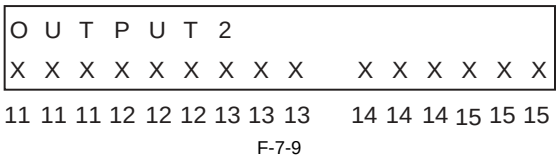
F-7-7

OUTPUT 1



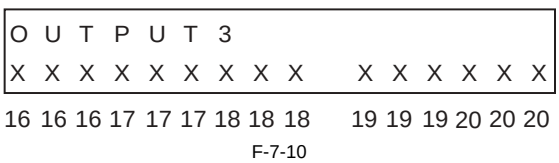
F-7-8

OUTPUT 2



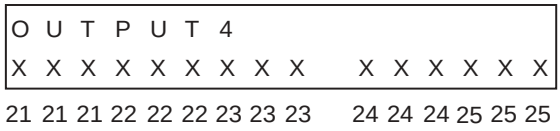
F-7-9

OUTPUT 3



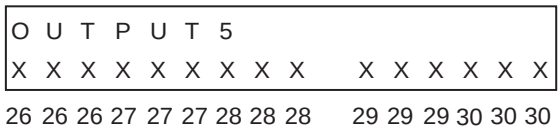
F-7-10

OUTPUT 4



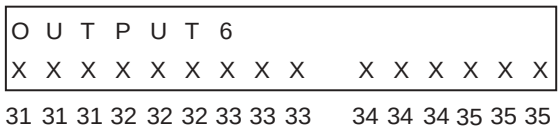
F-7-11

OUTPUT 5



F-7-12

OUTPUT 6



F-7-13

T-7-18

Display position	Description
1	Media edge (diffuse reflection) media output (including outside light)
2	Media edge (diffuse reflection) outside light output (when LED is OFF)
3	Media edge (diffuse reflection) platen output (excluding outside light)
4	Media edge (diffuse reflection) gain
5	Media edge (diffuse reflection) current value (Unit: X10mA)
6	Media edge (regular reflection) media output (including outside light)
7	Media edge (regular reflection) outside light output (when LED is OFF)
8	Media edge (regular reflection) platen output (excluding outside light)
9	Media edge (regular reflection) gain
10	Media edge (regular reflection) current value (Unit: X10mA)
11	GAP1 media output (including outside light)
12	GAP1 outside light output (when LED is OFF)
13	GAP1 platen output (excluding outside light)
14	GAP1 gain
15	GAP1 current value (Unit: X10mA)
16	GAP2 media output (including outside light)
17	GAP2 outside light output (when LED is OFF)
18	GAP2 platen output (excluding outside light)
19	GAP2 gain
20	GAP2 current value (Unit: X10mA)
21	Density (red) media output (including outside light)
22	Density (red) outside light output (when LED is OFF)
23	Density (red) platen output (excluding outside light)
24	Density (red) gain
25	Density (red) current value (Unit: X10mA)
26	Density (green) media output
27	Density (green) outside light output (including outside light)
28	Density (green) platen output (excluding outside light)
29	Density (green) gain
30	Density (green) current value (Unit: X10mA)
31	Density (blue) media output (including outside light)
32	Density (blue) outside light output (when LED is OFF)
33	Density (blue) platen output (excluding outside light)
34	Density (blue) gain
35	Density (blue) current value (Unit: X10mA)

MEMO:
- Display is all "?" if "GAP CALIB" is not performed.
- If the value exceeds 1000, 999 is displayed.

1. Checking "OUTPUT 0" and "OUTPUT 1" when media (excluding clear film) is fed
[Check 1]
Check whether the multi sensor performance has degraded or whether the media is compatible with the multi sensor.

When "Media edge (diffuse reflection) gain" and "Media edge (diffuse reflection) current value" are maximum values and "Media edge (diffuse reflection) media output" is 186 or less, an error occurs.
Maximum value of "Media edge (diffuse reflection)" gain: 255
Maximum value of "Media edge (diffuse reflection)" current value: 320

When the multi sensor and media are normal, the following values are displayed:

T-7-19

	Media edge (diffuse reflection) gain	Media edge (diffuse reflection) current value	Media edge (diffuse reflection) media output
Plain paper	About 10-35	About 200	About 500-600
Glossy paper	About 8-25		
Tracing paper	About 30-100		

[Check 2]
Check whether the multi sensor performance has degraded or whether the media is compatible with the multi sensor.

When the difference between "Media edge (diffuse reflection) gain" and "Media edge (diffuse reflection) platen output" is 100 or less, an error occurs.
When the multi sensor and media are normal, the difference is about 300-600.

[Check 3]
Check the effect of external diffuse light.

When the difference between "Media edge (diffuse reflection) external light output" and "Media edge (diffuse reflection) platen output" is 500 or more, the effect of diffuse light is judged as being great.
When the effect is normal, the difference is about 50-300.

[Check 4]
Check whether the media is compatible.

When the result of "Media edge (regular reflection) gain"x"Media edge (regular reflection) current value" is five times as large as the result of "Media edge (diffuse reflection) gain"x"Media edge (diffuse reflection) current value", the media is judged as being incompatible with the multi sensor.
If the media is compatible, the result is about 0.5 to 1.5 times for plain/glossy paper; about 1-3 times for tracing paper.

[Check 5]
Check whether the media is compatible.

When the result of "Media edge (diffuse reflection) gain"x"Media edge (diffuse reflection) current value" is in one of the following, the media may be incompatible with the multi sensor.
- Nine or more times as large as that of plain paper (normally, 2000-7000)
- Ten or more times as large as that of glossy paper (normally, 1600-5000)
- Three or more times as large as that of tracing paper (normally, 6000-20000)

2. Checking "OUTPUT 0" when clear film is fed

[Check 1]
Check whether the multi sensor performance has degraded or whether the media is compatible.

When the "Media edge (regular reflection) gain" and "Media edge (regular reflection) current value" are maximum values and "Media edge (regular reflection) media output" is 186 or less, an error occurs.
Maximum value of "media edge (regular reflection)" gain: 255
Maximum value of "media edge (regular reflection)" current value: 320

When the multi sensor and media are normal, the following values are displayed:

T-7-20

	Media edge (regular reflection) gain	Media edge (regular reflection) current value	Media edge (regular reflection) media output
Clear film	About 10-60	About 200	About 500-600

[Check 2]
Check whether the multi sensor performance has degraded or whether the media is compatible.

When the difference between "Media edge (regular reflection) gain" and "Media edge (regular reflection) platen output" is 100 or less, an error occurs.
When the multi sensor and media are normal, the difference is about 250-500.

[Check 3]
Check the effect of external diffuse light.

When the difference between "Media edge (regular reflection) external light output" and "Media edge (regular reflection) platen output" is 500 or more, the effect of diffuse light is judged as being great.
When the effect is normal, the difference is about 50-300.

3. Checking "OUTPUT 2/OUTPUT 3" and "OUTPUT 4/OUTPUT 5/OUTPUT 6"

[Check 1]
Check whether the multi sensor performance has degraded or whether the media is compatible.

When "GAP gain" and "GAP current value" are maximum values and "GAP media output" is 93 or less, an error occurs.

Maximum value of "GAP gain": 255
Maximum value of "GAP current value": 320

When the multi sensor and media are normal, "GAP gain" is about 30-250; "GAP current value" is about 200.

[Check 2]
Check whether the multi sensor performance has degraded or whether the media is compatible.

When "Density gain" and "Density current value" are maximum values and "Density media output" is 168 or less, an error occurs.
Maximum value of "Density gain": 255
Maximum value of "Density current value": 245

When the multi sensor performance and media are normal, "Density gain" is about 5-100; "Density current value" is about 200.

10) NOZZLE CHECK
Checks for non-discharging nozzle with head management sensor.

11) NOZZLE INF
Displays the result of non-discharging nozzle check performed with "NOZZLE CHECK" by nozzle row of each ink color.
- Press the ◄ key or ► key to switch the ink color.
- AE:A-EVEN row, AO:A-ODD row, BE:B-EVEN row, BO:B-ODD row

F-7-14

12) MEMORY CHK

T-7-21

Display	Description
DDR	Checks the DDR-SDRAM mounted on the Main Controller PCB.
EEP	Checks the EEPROM.

13) HEAD CNT CHK
Confirms the contact status of the printhead.

e) REPLACE
1) CUTTER
This mode is for replacing the cutter.

f) COUNTER
Displays the life (operation frequency and time) of each unit, print counts for each media type, and else.
The count values can be printed from [PRINT INF].

1) PRINTER: Counters related to product life

T-7-22

Display	Description	Unit
LIFE TTL	Cumulative number of printed media (equivalent of A4)	sheets
LIFE ROLL	Cumulative number of printed roll media (equivalent of A4)	sheets
LIFE CUTSHEET	Cumulative number of printed cut sheets (equivalent to A4)	sheets
LIFE A-F	Cumulative number of printed media for environments A to F	sheets
POWER ON	Cumulative power-on time (excluding the sleep time)	Hours
W-INK	Remaining capacity of the maintenance cartridge	%
CUTTER	Number of cutting operations (count as 1 by moving back and forth)	Times
WIPE	Number of wiping operations	Times
SLEEP ON	Cumulative sleep-on time	Hours

2) CARRIAGE: Counters related to carriage unit

T-7-23

Display	Description	Unit
PRINT	Cumulative printing time	Hours
DRIVE	Cumulative carriage moving time	Hours
CR COUNT	Cumulative carriage scan count (count as 1 by moving back and forth)	Times
CR DIST.	Cumulative carriage scan distance (count as 1 by moving 210mm)	Times
PRINT COUNT	Cumulative print end count (count as 1 by capping)	Times

3) PURGE: Counters related to purge unit

T-7-24

Display	Description	Unit
CLN-A-1	Cumulative number of automatic cleaning 1 (normal suction) operations	Times
CLN-A-2	Cumulative number of automatic cleaning 2 (ink level adjusting) operations	Times
CLN-A-3	Cumulative number of automatic cleaning 3 (initial filling) operations	Times
CLN-A-6	Cumulative number of automatic cleaning 6 (strong normal suction) operations	Times
CLN-A-7	Cumulative number of automatic cleaning 7 (aging) operations	
CLN-A-10	Cumulative number of automatic cleaning 10 (ink filling after secondary transportation) operations	Times
CLN-A-11	Cumulative number of automatic cleaning 11 (ink filling after head replacement) operations	Times
CLN-A-15	Cumulative number of automatic cleaning 15 (dot count small suction) operations	Times
CLN-A-16	Cumulative number of automatic cleaning 16 (sedimented ink agitation) operations	Times
CLN-A-17	Cumulative number of automatic cleaning 17 (small suction) operations	Times
CLN-A-TTL	Total number of automatic cleaning operations	Times
CLN-M-1	Cumulative number of manual cleaning 1 (normal suction) operations	Times
CLN-M-4	Cumulative number of manual cleaning 4 (ink draining from head after head replacement) operations	Times
CLN-M-5	Cumulative number of manual cleaning 5 (ink draining from head and tube before transportation) operations	Times
CLN-M-6	Cumulative number of manual cleaning 6 (normal strong suction) operations	Times
CLN-M-TTL	Total number of manual cleaning operations	Times

4) CLEAR: Counters related to counter initialization

T-7-25

Display	Description	Unit
CLR-INK CONSUME	Cumulative count of ink section consumption amount clearing	Times
CLR-MTC EXC.	Cumulative count of maintenance cartridge replacement count clearing	Times
CLR-HEAD EXC.	Cumulative count of printhead replacement count clearing	Times
CLR-UNIT CR-1 EXC.	Cumulative count of unit CR-1(carriage unit bushing) replacement count clearing	Times
CLR-UNIT CR-2 EXC.	Cumulative count of unit CR-2(fexible cable unit) replacement count clearing	Times
CLR-UNIT CR-3 EXC.	Cumulative count of unit CR-3(linear encoder sensor/linear scale/shaft cleaner) replacement count clearing	Times
CLR-UNIT CR-4 EXC.	Cumulative count of unit CR-4(carriage height changing cam) replacement count clearing	Times
CLR-UNIT CR-5 EXC.	Cumulative count of unit CR-5(multi sensor) replacement count clearing	Times
CLR-UNIT SP-1 EXC.	Cumulative count of unit SP-1(ink tube unit) replacement count clearing	Times
CLR-UNIT PG-1 EXC.	Cumulative count of unit PG-1(purge unit) replacement count clearing	Times
CLR-UNIT HMa-1 EXC.	Cumulative count of unit HMa-1(head management sensor) replacement count clearing	Times
CLR-UNIT MT-1 EXC.	Cumulative count of unit MT-1(carriage motor) replacement count clearing	Times
CLR-UNIT PL-1 EXC.	Cumulative count of unit PL-1(feed motor) replacement count clearing	Times
CLR-UNIT Mi-1 EXC.	Cumulative count of unit Mi-1(mist fan/mist exhaust duct) replacement count clearing	Times
CLR-UNIT CT-1 EXC.	Cumulative count of unit CT-1(cutter) replacement count clearing	Times
CLR-UNIT WF-1 EXC.	Cumulative count of unit WF-1(ink absorber under the maintenance cartridge unit) replacement count clearing	Times
CLR-UNIT WF-2 EXC.	Cumulative count of unit WF-2(platen exhaust duct) replacement count clearing	Times
CLR-FACTORY CNT.	For factory	Times

5) EXCHANGE: Counters related to parts replacement

T-7-26

Display	Description	Unit
MTC EXC.	Maintenance cartridge replacement count	Times
HEAD EXC.	Printhead replacement count	Times
BOARD EXC.(M/B)	Main controller PCB replacement count	Times
CR-1 EXC.	CR-1(carriage unit bushing) replacement count (Count of executing [INITIALIZE] > [PARTS COUNTER] > [PARTS CR-1])	Times
CR-2 EXC.	CR-2(fexible cable unit) replacement count (Count of executing [INITIALIZE] > [PARTS COUNTER] > [PARTS CR-2])	Times
CR-3 EXC.	CR-3(linear encoder sensor/linear scale/shaft cleaner) replacement count (Count of executing [INITIALIZE] > [PARTS COUNTER] > [PARTS CR-3])	Times
CR-4 EXC.	CR-4(carriage height changing cam) replacement count (Count of executing [INITIALIZE] > [PARTS COUNTER] > [PARTS CR-4])	Times
CR-5 EXC.	CR-5(multi sensor) replacement count (Count of executing [INITIALIZE] > [PARTS COUNTER] > [PARTS CR-5])	Times
SP-1 EXC.	SP-1(ink tube unit) replacement count (Count of executing [INITIALIZE] > [PARTS COUNTER] > [PARTS SP-1])	Times
PG-1 EXC.	PG-1(purge unit) replacement count (Count of executing [INITIALIZE] > [PARTS COUNTER] > [PARTS PG-1])	Times
HMa-1 EXC.	HMa-1(head management sensor) replacement count (Count of executing [INITIALIZE] > [PARTS COUNTER] > [PARTS HMa-1])	Times
MT-1 EXC.	MT-1(carriage motor) replacement count (Count of executing [INITIALIZE] > [PARTS COUNTER] > [PARTS MT-1])	Times
PL-1 EXC.	PL-1(feed motor) replacement count (Count of executing [INITIALIZE] > [PARTS COUNTER] > [PARTS PL-1])	Times
Mi-1 EXC.	Mi-1(mist fan/mist exhaust duct) replacement count (Count of executing [INITIALIZE] > [PARTS COUNTER] > [PARTS Mi-1])	Times
CT-1 EXC.	CT-1(cutter) replacement count (Count of executing [INITIALIZE] > [PARTS COUNTER] > [PARTS CT-1])	Times
WF-1 EXC.	WF-1(ink absorber under the maintenance cartridge unit) replacement count (Count of executing [INITIALIZE] > [PARTS COUNTER] > [PARTS WF-1])	Times
WF-2 EXC.	WF-2(platen exhaust duct) replacement count (Count of executing [INITIALIZE] > [PARTS COUNTER] > [PARTS WF-2])	Times

6) DETAIL-CNT: Other counters

T-7-27

Display	Description	Unit
MOVE PRINTER	Number of times "Prep.MovePrinter" on Main menu is executed.	Times
N-INKCHK(XX)	XX: Ink color Count of turning off the ink remaining level detection for each color	Times
MEDIACONFIG-CNT	Count of media registered by media editor	Times

7) INK-USE1: Counters related to ink consumption

T-7-28

Display	Description	Unit
INK-USE1(XX)	XX: Ink color Cumulative consumption amount of generic ink	ml
INK-USE1(TTL)	Total amount of the cumulative consumption of generic ink	ml
N-INK-USE1(XX)	XX: Ink color Cumulative consumption amount of refilled ink	ml
N-INK-USE1(TTL)	Total amount of the cumulative consumption of refilled ink	ml

8) INK-USE2: Counters related to ink consumption

T-7-29

Display	Description	Unit
INK-USE2(XX)	XX: Ink color Consumption amount of generic ink of the currently installed ink tank.	ml
INK-USE2(TTL)	Total consumption amount of generic ink of the currently installed ink tanks	ml
N-INK-USE2(XX)	XX: Ink color Consumption amount of refilled ink of the currently installed ink tank	ml
N-INK-USE2(TTL)	Total consumption amount of refilled ink of the currently installed ink tanks	ml

9) INK-EXC: Counters related to ink tank replacement

T-7-30

Display	Description	Unit
INK-EXC(XX)	XX: Ink color Cumulative count of generic ink tank replacement	ml
INK-EXC(TTL)	Total amount of tho cumulative count of generic ink tank replacement	ml
N-INK-EXC(XX)	XX: Ink color Cumulative count of refilled ink tank replacement	ml
N-INK-EXC(TTL)	Total amount of tho cumulative count of refilled ink tank replacement	ml

10) MEDIA x (x: 1 to 7): Counters related to media
One to seven media types are displayed individually in order with large cumulative print area.

T-7-31

Display	Description	Unit
NAME	Media type	-
TTL	Total amount of cumulative print area of roll media and cut sheet (metric)	Sq.m
TTL	Total amount of cumulative print area of roll media and cut sheet (inch)	Sq.f
ROLL	Cumulative print area of roll media (metric)	Sq.m
ROLL	Cumulative print area of roll media (inch)	Sq.f
CUT SHEET	Cumulative print area of cut sheet (metric)	Sq.m
CUT SHEET	Cumulative print area of cut sheet (inch)	Sq.f

11) MEDIA OTHER: Counters related to media
Displays the total amount of cumulative print area of the other media type than the above-mentioned

T-7-32

Display	Description	Unit
NAME	Media type	-
TTL	Total amount of cumulative print area of roll media and cut sheet (metric)	Sq.m
TTL	Total amount of cumulative print area of roll media and cut sheet (inch)	Sq.f
ROLL	Cumulative print area of roll media (metric)	Sq.m
ROLL	Cumulative print area of roll media (inch)	Sq.f
CUT SHEET	Cumulative print area of cut sheet (metric)	Sq.m
CUT SHEET	Cumulative print area of cut sheet (inch)	Sq.f

12) MEDIASIZE1 ROLL: Counters related to roll media printing

T-7-33

Display	Description	Unit
P-SQ 36-44	Cumulative print area of paper equal to or larger than 36 inches but less than 44 inches (physical size)	Sq.m/Sq.f
P-SQ 24-36	Cumulative print area of paper equal to or larger than 24 inches but less than 36 inches (physical size)	Sq.m/Sq.f
P-SQ 17-24	Cumulative print area of paper equal to or larger than 17 inches but less than 24 inches (physical size)	Sq.m/Sq.f
P-SQ -17	Cumulative print area of paper less than 17 inches (physical size)	Sq.m/Sq.f
P-CNT 36-44	Cumulative number of sheets of A4-equivalent paper equal to or larger than 36 inches but less than 44 inches (physical size)	sheets
P-CNT 24-36	Cumulative number of sheets of A4-equivalent paper equal to or larger than 24 inches but less than 36 inches (physical size)	sheets
P-CNT 17-24	Cumulative number of sheets of A4-equivalent paper equal to or larger than 17 inches but less than 24 inches (physical size)	sheets
P-CNT -17	Cumulative number of sheets of A4-equivalent paper less than 17 inches (physical size)	sheets

13) MEDIASIZE2 ROLL: Counters related to roll media printing

T-7-34

Display	Description	Unit
D-SQ 36-44	Cumulative print area of paper equal to or larger than 36 inches but less than 44 inches (data size)	Sq.m/Sq.f
D-SQ 24-36	Cumulative print area of paper equal to or larger than 24 inches but less than 36 inches (data size)	Sq.m/Sq.f
D-SQ 17-24	Cumulative print area of paper equal to or larger than 17 inches but less than 24 inches (data size)	Sq.m/Sq.f
D-SQ -17	Cumulative print area of paper less than 17 inches (data size)	Sq.m/Sq.f
D-CNT 36-44	Cumulative number of sheets of A4-equivalent paper equal to or larger than 36 inches but less than 44 inches (data size)	sheets
D-CNT 24-36	Cumulative number of sheets of A4-equivalent paper equal to or larger than 24 inches but less than 36 inches (data size)	sheets
D-CNT 17-24	Cumulative number of sheets of A4-equivalent paper equal to or larger than 17 inches but less than 24 inches (data size)	sheets
D-CNT -17	Cumulative number of sheets of A4-equivalent paper less than 17 inches (data size)	sheets

14) MEDIASIZE1 CUT: Counters related to cut sheet printing

T-7-35

Display	Description	Unit
P-SQ 36-44	Cumulative print area of paper equal to or larger than 36 inches but less than 44 inches (physical size)	Sq.m/Sq.f
P-SQ 24-36	Cumulative print area of paper equal to or larger than 24 inches but less than 36 inches (physical size)	Sq.m/Sq.f
P-SQ 17-24	Cumulative print area of paper equal to or larger than 17 inches but less than 24 inches (physical size)	Sq.m/Sq.f
P-SQ -17	Cumulative print area of paper less than 17 inches (physical size)	Sq.m/Sq.f
P-CNT 36-44	Cumulative number of sheets of A4-equivalent paper equal to or larger than 36 inches but less than 44 inches (physical size)	sheets
P-CNT 24-36	Cumulative number of sheets of A4-equivalent paper equal to or larger than 24 inches but less than 36 inches (physical size)	sheets
P-CNT 17-24	Cumulative number of sheets of A4-equivalent paper equal to or larger than 17 inches but less than 24 inches (physical size)	sheets
P-CNT -17	Cumulative number of sheets of A4-equivalent paper less than 17 inches (physical size)	sheets

15) MEDIASIZE2 CUT: Counters related to cut sheet printing

T-7-36

Display	Description	Unit
D-SQ 36-44	Cumulative print area of paper equal to or larger than 36 inches but less than 44 inches (data size)	Sq.m/Sq.f
D-SQ 24-36	Cumulative print area of paper equal to or larger than 24 inches but less than 36 inches (data size)	Sq.m/Sq.f
D-SQ 17-24	Cumulative print area of paper equal to or larger than 17 inches but less than 24 inches (data size)	Sq.m/Sq.f
D-SQ -17	Cumulative print area of paper less than 17 inches (data size)	Sq.m/Sq.f
D-CNT 36-44	Cumulative number of sheets of A4-equivalent paper equal to or larger than 36 inches but less than 44 inches (data size)	sheets
D-CNT 24-36	Cumulative number of sheets of A4-equivalent paper equal to or larger than 24 inches but less than 36 inches (data size)	sheets
D-CNT 17-24	Cumulative number of sheets of A4-equivalent paper equal to or larger than 17 inches but less than 24 inches (data size)	sheets
D-CNT -17	Cumulative number of sheets of A4-equivalent paper less than 17 inches (data size)	sheets

16) HEAD DOT CNT.1: Counter related to dot count

T-7-37

Display	Description	Unit
XX	XX: Ink color Dot counts of each colors of the currently installed printhead	(x 1,000,000) dots
TTL	Total dot counts of each colors of the currently installed printhead	(x 1,000,000) dots

17) HEAD DOT CNT.2: Counter related to dot count

T-7-38

Display	Description	Unit
XX	XX: Ink color Cumulative dot counts of each colors	(x 1,000,000) dots
TTL	Total cumulative dot counts of each colors	(x 1,000,000) dots

18) PARTS CNT. : Counter related to consumable parts

F-7-15

The displays are selectable with the ◄ and ► keys.
Cunter of the consumable part (current)

F-7-16

Life of the consumable part

F-7-17

Use rate until part replacement

F-7-18

Counter of the consumable part (accumulate)

F-7-19

T-7-39

Display		Description	Unit
COUNTER xx-x		xx-x: Unit number of consumable parts (For detail, refer to "Maintenance and Inspection" > "Consumable Parts") Display the status (aa) and the days passed since the counter (bbbb) resetting. - Status OK: Use rate (until part replacement) of all consumable parts included in each unit are below 90%. W1: Use rate (until part replacement) of either of the consumable parts included in each unit has reached 90% or more. W2: Use rate (until part replacement) of either of the consumable parts included in each unit has reached 100%, but no need to stop the printer. E : Use rate (until part replacement) of either of the consumable parts included in each unit has reached 100%, and the printer needs to be stopped.	Days
	1:	Unit number of consumable parts Counter of the consumable part (current)	
	2:	Life of the consumable part	
	3:	Use rate until part replacement	%
	4:	Counter of the consumable part (accumulate)	

g) SETTING
Make various settings.

1) Pth
Turn on or off the head pulse rank control function.
Default: OFF

2) RTC
Set RTC (real time clock) after replacing the lithium battery on the main controller PCB.

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Display		Description
DATE	yyyy/mm/dd	Set date
TIME	hh:mm	Set time

3) PV AUTO JUDGE
Sets ink saver mode.
Default: OFF

4) NETWORK
See "e-maintenance/imageWARE Remote" for detail.

5) E-RDS
See "e-maintenance/imageWARE Remote" for detail.

6) HEAD DOT INF
Set whether to turn ON/OFF displaying of message as the result of non-discharging nozzle detection.
Default: OFF

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Number of non-discharging nozzle (nozzle/2,560-nozzles)	ON	OFF
0-99	Displays a message to check the printing.	-
100-319	Displays a message to check the head.	-
320 or more	Displays a message to replace the head.	

h) INITIALIZE
Clear the [DISPLAY] histories, [ADJUST] settings, [COUNTER] values, and other parameters.

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Display		Description
WARNING		Initialize the history of WARNING. (All displayed contents of [DISPLAY] > [WARNING] will be initialized.)
ERROR		Initialize the history of ERROR. (All displayed contents of [DISPLAY] > [ERROR] will be initialized.)
ADJUST		Initialize the value of band adjustment (by user) and head adjustment. The automatically adjusted value will not be initialized.
W-INK		Initialize the remaining capacity (%) of the maitenance cartridge. (Clear [COUNTER] > [PRINTER] > [W-INK])
CARRIAGE		Initialize the counter related to carriage unit. (Clear [COUNTER] > [CARRIAGE])
PURGE		Initialize the counter related to purge unit. (Clear [COUNTER] > [PURGE])
INK-USE CNT		Initialize the consumption amount of ink. (Clear [COUNTER] > [INK-USE2], and count up [COUNTER] > [CLEAR] > [CLR-INK CONSUME])
CUTTER-CHG-CNT		Initialize the cutter unit replacement frequency. (Clear [COUNTER] > [EXCHANGE] > [CUTTER EXC.], and count up [COUNTER] > [CLEAR] > [CLR-CUTTER EXC.])
W-INK-CHG CNT		Initialize the maintenance cartridge replacement frequency. (Clear [COUNTER] > [EXCHANGE] > [MTC EXC.], and count up [COUNTER] > [CLEAR] > [CLR-MTC EXC.])
HEAD-CHG CNT		Initialize the printhead replacement frequency. (Clear [COUNTER] > [EXCHANGE] > [HEAD EXC.], and count up [COUNTER] > [CLEAR] > [CLR-HEAD EXC.])
HDD BOX PASS.	ALL FOLDERS	Initialize the BOX password of all folders of the hard disk drive to factory default.
	FOLDER xx	Initialize the BOX password of FOLDER xx of the hard disk drive to factory default.
PARTS-CHG CNT	PARTS xx-x	xx-x: Unit number of consumable parts (For details, refer to "Maintenance and Inspection" > "Consumable Parts") Initialize the consumable part replacement frequency. (Clear [COUNTER] > [EXCHANGE] > [xx-x EXC], and count up [COUNTER] > [CLEAR] > [CLR xx-x EXC.])
PARTS COUNTER	PARTS xx-x	xx-x: Unit number of consumable parts (For details, refer to "Maintenance and Inspection" > "Consumable Parts") Initialize the counter amount of the consumable parts. (Clear [COUNTER] > [PARTS CNT.] > [COUNTER xx-x]) * After replacing the consumable part, be sure to execute this menu.

Display	Description
USER SETTING	Initializes the user menu. Same as executing the following mode in the user menu. -[Set./Adj. Menu]-[System Setup]-[Reset PaprSetngs] -[Set./Adj. Menu]-[Interface Setup]-[Return Defaults]
CA-KEY	See "e-maintenance/imageWARE Remote" for detail.
ERDS-DAT	See "e-maintenance/imageWARE Remote" for detail.

7.1.4 e-Maintenance/imageWARE Remote

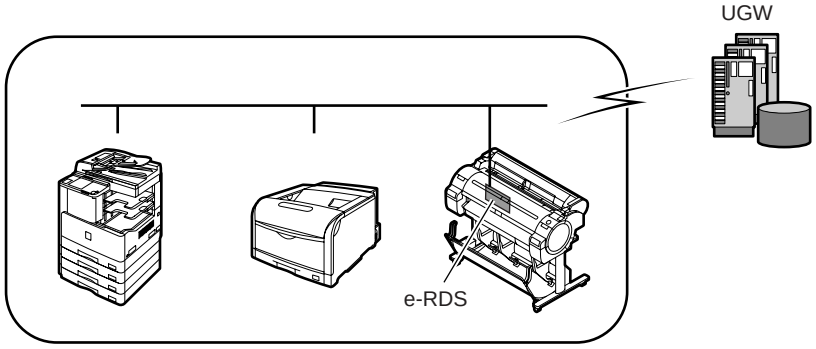
iPF750 / iPF755

1. Overview
The e-Maintenance/imageWARE Remote system allows a customer's device information and status to be monitored via the Internet on a server called the UGW (Universal Gateway) Server.

The following device information/ statuses can be monitored.
- Service mode counters
- Parts counters
- Mode counters
- Firmware information
- Service call errors log
- Jam log
- Alarm log
- Alert change statuses (Toner/ ink low/ out, etc.)

Device monitor information above is sent by the e-RDS (embedded Remote Diagnostic System), which is embedded in the devices.

Further, as the above is all customer information, https SOAP protocol is used for communication between the UGW and the device, providing enhanced security (SSL client communication)



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2. Feature and benefits
Device (e-RDS) embedded with network module can realize a front-end processing of the e-Maintenance/imageWARE Remote system without attaching an extra hardware equipment.
The e-Maintenance/ imageWARE Remote system can be implemented without imposing a burden on the users.

3. Settings procedures
3.1 Advance preparations
To monitor the device with e-Maintenance/imageWARE Remote, the following settings are required.

1) Advance confirmation
Check with the UGW administrator whether the printer to be connected to the e-Maintenance/imageWARE remotely has been registered in the UGW.

2) Advance preparations
Interview the user's system administrator in advance to find out the following information about the network.

Information item -1
IP address setting methods
Check whether automatic setting or manual setting is to be used, and confirm the information below.
- Automatic setting: (DHCP, RARP, BOOTP) (ON/OFF selection)
or
- Manual setting: IP address, subnet mask and gateway address to be set

Information item -2
Is there a DNS server in use?
If there is a DNS server in use, find out the following.
- Primary DNS server address
- Secondary DNS server address (optional)

Information item -3
Is there a proxy server?
If there is a proxy server in use, find out the following.
- Proxy server address
- Port number connected to proxy server

Information item -4
Is proxy server authentication required?
If proxy server authentication is required, find out the following.
- User name and password required for proxy authentication

3) Network settings
Based on the results of the information obtained in (2) Advance preparations, make the device network related settings in accordance with the following procedures.

3.2 e-RDS settings
1) Enter the service mode.
- Turn off the printer power.
- Turn on the power while pressing the [Load] key and [Navigate] key.
  * Keep pressing the above keys until "Initializing" is displayed.
- "S" appears at the top right of the display.

- Press the ◄ or ► key to choose the [Set./Adj. Menu]and press the [OK] key.
  * "SERVICE MODE" appears in the menu list and the MESSAGE LED flashes.
- Press the ▲ key or ▼ key to choose "SERVICE MODE" and press the [OK] key.

2) Set the following e-RDS setting items No.1-4.
(If the result of the communication test (COM-TEST) is "NG", execute setting items No.5-6 to solve the problem.)

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No.	Item	Type	Description
1	E-RDS SWITCH	2 bytes	OFF : Disable/ ON : Enable e-Maintenance/ imageWARE Remote system to send device information, meter data, and error statuses to the UGW. Default value is OFF (not in use)
2	UGW-ADDRESS	129 bytes (NULL included, SJIS not allowed)	The UGW address by default : https://a01---. The complete address is not provided in this document for security reason.
3	UGW-PORT	4 bytes	The UGW Port Number by default : 443 Validation : 1-65535
4	COM-TEST		To perform Communication test with UGW and set "OK!"/ "NG!" as the result.
5	COM-LOG		Detailed communication data log Switches to display time when error occurred, error code, and error data up to now. Max 30 loggings retained. Max 128 characters (not containing NULL) for Error information.
6	ERDS-DAT		Initialize e-RDS setting data

3.3 Service Mode Menu Tree

T-7-44

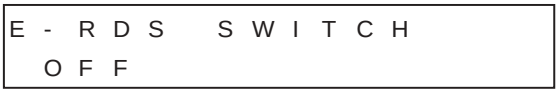
First Level	Second Level	Third Level	Fourth Level	Fifth Level	
DISPLAY					
I/O DISPLAY					
ADJUST					
FUNCTION					
REPLACE					
COUNTER					
SETTEING	Pth				
	RTC				
	PV AUTO JUDGE				
	NETWORK	CERTIFICATE	CA-CERTIFICATE	VALIDITY:*1	YYYY/MM/DD
	E-RDS	E-RDS SWITCH:*1	ON/OFF		
		UGW-ADDRESS:*1	http://XXX		
		UGW-PORT:*1	XXXXX		
		COM-TEST:*1	YES		
		COM-LOG:*1			
	HEAD DOT INF				
INITIALIZE	WARNING				
	ERROR				
	ADJUST				
	W-INK				
	CARRIAGE				
	PURGE				
	INK-USE CNT				
	W-INK-CHG CNT				
	HEAD-CHG CNT				
	HDD BOX PASS				
	PARTS-CHG CNT				
	PARTS COUNTER				
	USER SETTEING				
	CA-KEY:*1	YES/NO			
	ERDS-DAT:*1	YES/NO			

* Press ► key to move to the next menu of the same layer, and press ▼ key to move to the menu of one layer deeper.
* The menus shown in '*1' are the e-RDS-related menus.

3.4 e-RDS Related Setting Details
1) e-RDS's Operation Mode [E-RDS SWITCH]

In service mode, referring to the "Service Mode Menu Tree", go to [E-RDS SWITCH] menu using ▶ key and ▼ key.

(1) Choose between [ON] or [OFF] using the ◀ and ▶ keys.



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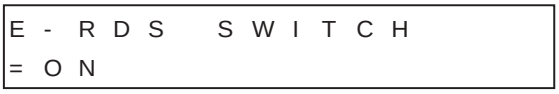
(2) Press [OK] key to determine the operation mode and go back to the previous screen.



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- When the operation mode is determined, "=" will be displayed.

- OFF:When it is set to [OFF], e-RDS is not used. Default value is OFF.

- ON:When it is set to [ON], e-RDS is used.

2) UGW Address [UGW-ADDRESS] and UGW port [UGW-PORT]
Usually, the default values set in advance are used for the setting value of [UGW-ADDRESS] and [UGW-PORT]. Unless there is a special instruction, the default value should not be changed. If it should be changed, the communication with UGW may have an error. If [UGW-ADDRESS] and [UGW-PORT] are changed, the new setting will be enabled after power OFF/ON.
Therefore, usually, the setup is not necessary.
* If you change under a special instruction, perform the following procedure.

(1) Setting address for UGW

- In service mode, referring to the "Service Mode Menu Tree", go to [UGW-ADDRESS] menu using ▶ key and ▼ key.

F-7-23

- Press ▼ key to enter the Setup Mode. (A character indicating the input mode (in the upper right corner of the screen) and the cursor are displayed.)
  Enter UGW address (URL).

F-7-24

Display to indicate an input mode
A:Alphabet capital letter
a:Alphabet small letter
1:Numerical character
- The cursor is shown at the first letter.
- Use ▲ and ▼ keys to select characters to enter.
- Press [Back] key to cancel what you entered and go back to the previous screen.
- Press [OK] key to determine what you entered and go back to the previous screen.

(2) Setting up the GW Port Number

- In service mode, referring to the "Service Mode Menu Tree", go to [UGW-PORT] menu using ▶ key and ▼ key.

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- Press ▼ key to enter the Setup Mode. (A cursor is displayed.)
  Enter a port number.

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- Use ▲ and ▼ keys to select characters to enter.
- Press [Back] key to cancel what you entered and go back to the previous screen.
- Press [OK] key to determine what you entered and go back to the previous screen.

* The actual setting value of UGW address [UGW-ADDRESS] and UGW port [UGW-PORT] are categorized as confidential information, so they are not described in this manual.

3) Communication Test [COM-TEST]

(1) In service mode, referring to the "Service Mode Menu Tree", go to [COM-TEST] menu using ► key and ▼ key.

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(2) Press [OK] key to start the test. ("=" is displayed at the start of the test.)

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(3) During the communication test, "CHECK NOW" is displayed.

F-7-29

- Once the communication test is started, it cannot be cancelled.(Other operation won't be accepted until the result is obtained.)

(4) If the communication test was successful, "CHECK RSLT:OK" is displayed.

F-7-30

- Press ▲ key to exit this operation mode and go back to the top of [COM-TEST] menu.

(5) If the communication test was failed, "CHECK RSLT:NG" is displayed.

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- Press ▲ key to exit this operation mode and go back to the top of [COM-TEST] menu.
- If you cannot obtain the result after 30 seconds from the start of a communication test, the test is considered failed and the same screen will appear.

* When the communication test was successful, it is necessary to take the interval of 5 minutes before performing the next communication test.

4) Communication Log [COM-LOG]

Communication Error Information/Detailed Communication Error Information can be displayed on the screen at the time of a communication error with the Service Center (including proxy server error). When a communication error occurs, you can refer to this information to study how to deal with the problem.

* For the countermeasure corresponding to each Communication Error Information or Detailed Communication Error Information, see the list of error message in "4. Troubleshoot".

(1) In service mode, referring to the "Service Mode Menu Tree", go to [COM-LOG] menu using ► key and ▼ key.

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(2) Press ▼ key, and communication error information is displayed. On the upper line of the LCD, a log number (01-30) and an error code are shown; on the bottom line, an occurrence date and time of the error is shown.

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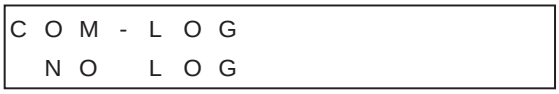
- COM-LOG information can be saved up to 30 cases.
- Use Right and Left keys to change logs to display.
- Logs are displayed in the sequence of the time of occurrence. (Log number 1 is the latest log.)
- Press ▲ key to exit this operation mode and go back to the top of [COM-LOG] menu.

* If the Communication Error Information is not saved, the screen below will appear.



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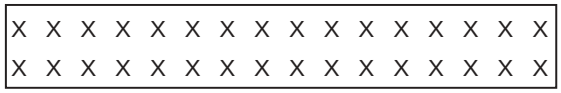
- Press ▲ key to exit the communication error information screen and go back to the top of [COM-LOG] menu.

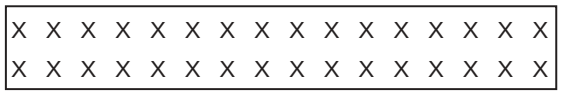
(3) Press ▼ key to display the Detailed Communication Error Information (maximum 128 characters).

1st-32nd characters of Detailed Communication Error Information are shown.



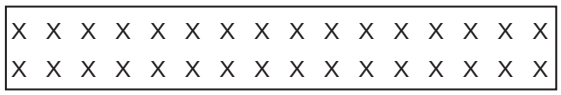
F-7-35

33rd-64th characters of Detailed Communication Error Information are shown.



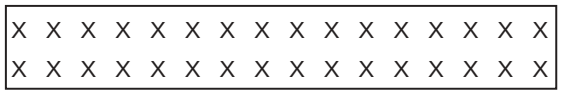
F-7-36

65th-96th characters of Detailed Communication Error Information are shown.



F-7-37

97th-128th characters of Detailed Communication Error Information are shown.



F-7-38

- Use ◄ and ► keys to move among Screen and Screen. (Detailed Communication Error Information can be made with maximum 128 characters, however, even if the information is made up with 1 to 96 characters, all Screens are still displayed.)
- Press ▲ key to exit the Detailed Communication Error Information screen and go back to the Communication Error Information screen.

* If Detailed Communication Error Information does not exist, the screen below will appear.

F-7-39

- Press ▲ key to exit the Detailed Communication Error Information screen and go back to the Communication Error Information screen.

5) Initializing the e-RDS setting [ERDS-DAT]
Usually, the setup is not necessary.
Use this procedure when you want to reset the e-RDS settings to the factory default.

(1) In service mode, referring to the "Service Mode Menu Tree", go to [ERDS-DAT] menu using ► key and ▼ key.

F-7-40

(2) Choose between YES/NO using ◄ and ► keys, and press [OK] key to set.

F-7-41

- Press [OK] key, and "=" will appear and the initializing process will begin.

[NO]: Do not initialize the e-RDS setting. Default value is [NO].
[YES]: Initialize the e-RDS setting.

6) Displaying the CA Certificate Information [VALIDITY]

For the secure communication between the device (e-RDS) and the UGW, an authentication technology from a certification authority is used. A license has been issued from the certification authority. For this reason, the devices are shipped with the CA (Certificate Authority) certificate enabled in advance to prove the license obtained.

Therefore, usually, the setup is not necessary.

To confirm that this CA certificate is valid or how long it will be valid, you can display the expiration date of the CA certificate information.

(1) In service mode, referring to the "Service Mode Menu Tree", go to [VALIDITY] menu using ► key and ▼ key.

F-7-42

(2) Press ▼ key, and the expiration date of the CA certificate will be displayed.

F-7-43

- Press ▲ key to exit the CA certificate expiration date display screen and go back to the top of [VALIDITY] menu.

* If the CA certificate is deleted, the screen below will appear.

F-7-44

- Press ▲ key to exit the CA certificate expiration date display screen and go back to the top of [VALIDITY] menu.

7) Deleting the CA Certificate [CA-KEY]

For the secure communication between the device (e-RDS) and the UGW, an authentication technology from a certification authority is used. A license has been issued from the certification authority. For this reason, the devices are shipped with the CA (Certificate Authority) certificate enabled in advance to prove the license obtained.
The device (e-RDS) uses this CA certificate to communicate with the UGW, thus CA must not be deleted.

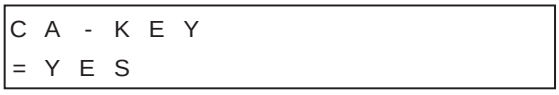
Therefore, usually, the setup is not necessary.

* If you delete the CA certificate under a special instruction, perform the following procedure.

(1) In service mode, referring to the "Service Mode Menu Tree", go to [CA-KEY] menu using ► key and ▼ key.

F-7-45

(2) Choose between YES/NO using ◄ and ► keys, and press [OK] key to set.



F-7-46

- Press [OK] key, and "=" will appear and the initializing process will begin.

[NO]: Do not delete the CA certificate. Default value is [NO].
[YES]: Delete the CA certificate.

4. FAQ

T-7-45

No.	Question	Answer
Q1	Registration information of the device (E-RDS) is once deleted from the UGW server, and is re-registered after that. If a communication test is not carried out, then device information on UGW becomes invalid.	When registration of the device (e-RDS) is deleted from the UGW, the status will be changed to that the communication test has not completed because related information has lost from a database. Therefore, device information will also become invalid if that condition is going for seven days without carrying out the communication test. Hence, to avoid the invalid condition, carry out the communication test.
Q2	The communication test with the UGW server results NG!	The following cases can be considered in the becoming NG case. - 1. Name resolution was failed due to an incorrect host name or DNS server has been halted. - 2. Network cable is blocked off. Network cable is broken. - 3. Proxy server settings are not correct.
Q3	Could you describe the timing of data transmitting from the device (e-RDS) to the UGW, and what data size is sent to the UGW?	The schedule of data transmitting, and the start time are determined by settings in the UGW side. The timing is once per 16 hours by default, and counter data size could be maximum 1400 bytes.
Q4	Can I turn the device power off during the device (e-RDS) operation?	While operating the device (e-RDS), the power of the device must be ON. If power OFF is needed, do not leave the device power OFF for long time. It will become "Device is busy, try later" errors if the power supply of network equipment such as HUB is made prolonged OFF.

5. Troubleshooting

T-7-46

No.	Condition detected	Action
1	The communication test has failed.	Check network conditions such as proxy server settings and so on. - Check the communication log from COM-LOG. -> Execute "Remedy" in the "Error message list". - Check whether RGW-ADDRESS or RGW-PORT settings have changed.

6. Error message list
Details of the errors and their remedies are as described below.
(The meaning of server indicates the UGW in this section)

T-7-47

No.	Error Message	Cause	Remedy
1	SUSPEND: Communication test is not performed	E-RDS has been booted up (device reboot) with E-RDS SWITCH = ON but the communication test had not yet been performed.	Perform the communication test [COMTEST] in service mode.
2	Event Registration is Failed	Event Registration is Failed Processing (event processing) within the device has failed.	Turn the device OFF/ ON. If the error persists, replace the device system software (firmware). (Upgrade)
3	URL Scheme error (not https)	The header of the URL of the registered UGW is not in https format. A "https://" input error.	Check that the value of UGW-ADR has been entered correctly as https://a01---.
4	Server connection error	An UGW connection error. Displayed in the event of a TCP/IP communication fault.	Check the network-related settings according to "No.1: Communication test is not performed" in "Troubleshooting".
5	URL server specified is illegal	A URL different to that specified by the UGW has been set. An URL address setting error.	Check that the value of UGW-ADR has been entered correctly as https://a01---.
6	Proxy connection error	Cannot connect to proxy server. Displayed when unable to connect to proxy server.	Check proxy server address and re-enter if necessary.
7	Proxy authentication error	Displayed when the authentication to the proxy server has failed.	Check the user name and password required in order to login to the proxy, and re-enter if necessary.
8	Server certificate error	Device's route certificate is unavailable.	Reinstall the latest device system software (firmware). (Upgrade)
9	Server certificate expired	The route certificate registered with the device has expired.	Check that the device time and date are correctly set. If the device time and date are correct, upgrade to the latest system software (firmware).
10	Unknown error	Some other kind of communication error has occurred.	Try again after a period of time. If the same error occurs again, check the UGW status with the UGW administrator.
11	SOAP Fault	SOAP communication error has occurred.	Check that the value of UGW-PORT is 443.
12	Server response error (NULL)	A UGW response error (when UGW error code processing has failed). A HTTPS communication error.	Try again after a period of time. If the same error persists, check the UGW status with the UGW administrator.
13	Server response error (Hexadecimal) [Error detailed in the UGW]:*1	A UGW response error. Displayed when communication with UGW has been successful, but an error of some sort has prevented UGW from responding.	Check an error code (hexadecimal) returned from the UGW, then retry after a period of time.
14	Device internal error	An internal device error. An error due to the device side.	Switch the device OFF/ ON. Or, replace the device system software. (Upgrade)
15	Server schedule is invalid	During the communication test, there has been some kind of error in the schedule values passed from UGW.	When the error occurs, report the details to the support department. Then, after the UGW side has responded, retry the communication test.
16	Server response time out	UGW response time out. Due to network congestion, etc., the response from UGW does not come within the specified time.	If this error occurs when the communication test is being run, wait some time and rerun the test.
17	Server not found	There is a mistake in the UGW URL, and UGW cannot be accessed.	Check that the value of Service mode > E-RDS/RGW-ADR is https://a01---.
18	E-RDS switch is set OFF	E-RDS is disabled.	Set E-RDS SWITCH = ON, and run COM-TEST in service mode.
19	Server schedule is not exist	Server schedule does not exist. Blank schedule data have been received from UGW.	Check the device settings status with the UGW administrator.
20	Network is not ready, try later	Network-related settings have not been made for the device.	Make network-related settings properly for the device (printer).
21	URL error	A URL setting error. Non-URL text string entered in URL field.	Check that the value of UGW-ADR is https://a01---.
22	Proxy address resolution error	A proxy server address resolution error.	Check that the proxy server name is correct.
23	Server certificate verify error	The server certificate verification (URL check) error.	Check that the value of UGW-ADR is https://a01---.
24	Server address resolution error	UGW address resolution has failed.	Check that the value of UGW-ADR is https:// a01---.

*1:[Hexadecimal] indicates an error code returned from the UGW in hexadecimal.

7. Service cautions
After performing the following service actions, it is necessary to perform the resetting of the e-RDS.
Failure to do so will result that the counter transmitting value to the UGW may become unusual.

- System software (firmware) upgrade
- After replacing the main controller board, the following settings in service mode must not be changed unless there are specific instructions to do so. Changing these values will cause error in communication with the UGW.

(Initial values)
UGW-PORT: 443
UGW-ADDRESS: https://a01---.

7.1.5 Viewing PRINT INF

iPF750 / iPF755

a) PRINT INF item detail
The details of each PRINT INF item displayed when performing [SERVICE MODE] > [DISPLAY] > [PRINTINF] are as follows:

T-7-48

Print item		Print content	Printed value
SYSTEM	S/N	Serial number of printer	characters/numerals of 8-byte
	TYPE	Type setting on main controller PCB	36
	LF TYPE	Feed roller type	0: old type roller 1: new type roller
	TMP	Ambient temperature	Unit: Centigrade degree
	RH	Ambient humidity	Unit: %
	SIZE LF	Detected size of loaded media (feed direction)	mm (0 is always detected for the roll media.)
	SIZE CR	Detected size of loaded media (carriage scan direction)	mm
	AFTER INST.	Number of days since initial installation	Unit: Day(s)
HEAD	S/N	Serial number of printhead	characters/numerals (8 digits)
	LOT	Lot number of printhead	characters/numerals (8 digits)
INK	BK, MBK, MBK2, C, M, Y	Number of days passed since the ink tank was installed	Unit: Days
WARNING	01-20	Warning history (up to 20 events)	Number: Lowest is the most recent Date: mm/dd Time: mm/ss Error code: Last 4 digits Cumulative number of printed media (equivalent of A4)
ERROR	01-20	Error history (up to 20 events)	Number: Lowest is the most recent Date: mm/dd Time: mm/ss Error code: Last 4 digits Cumulative number of printed media (equivalent of A4)

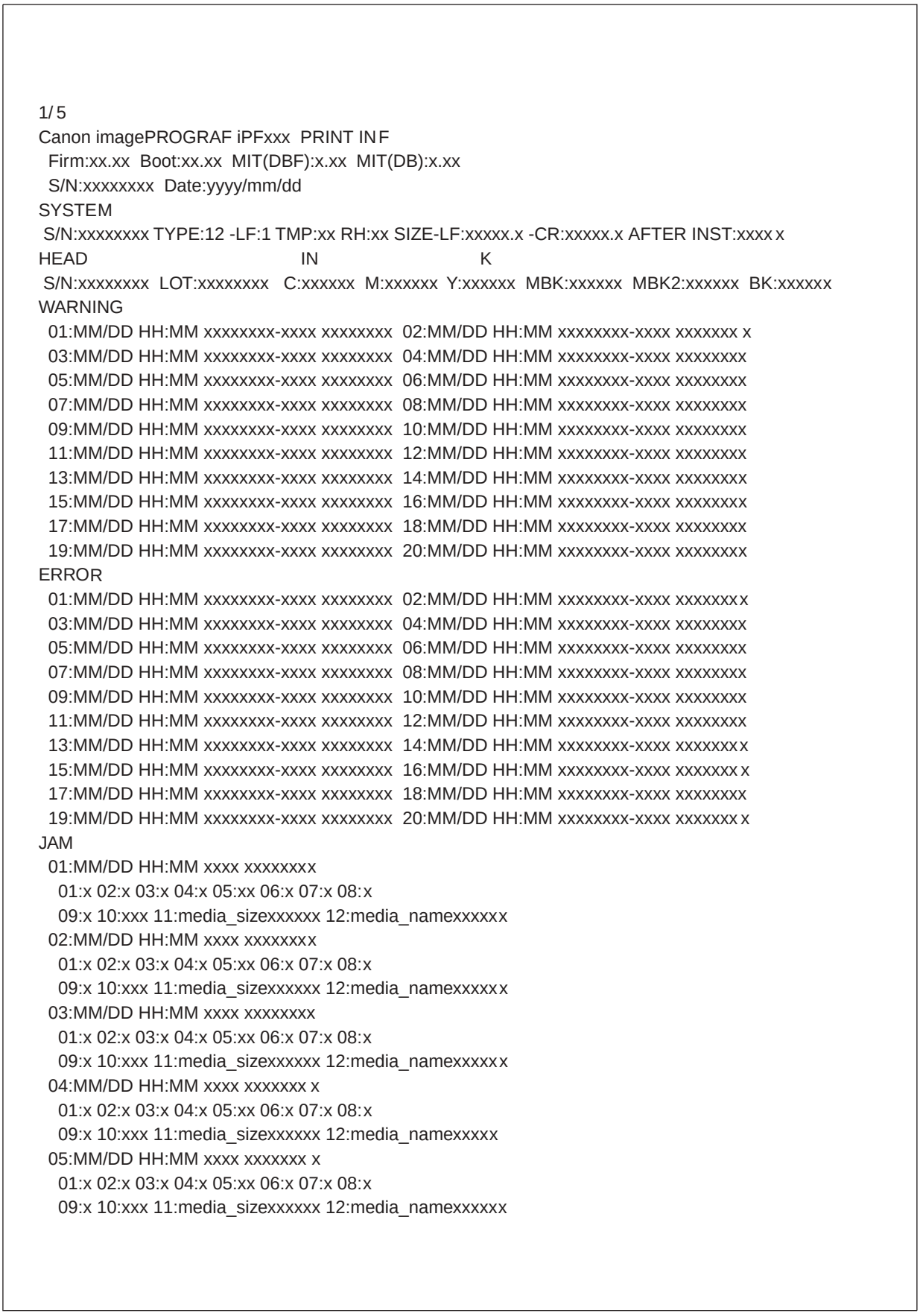
Print item		Print content	Printed value
JAM	01-05	JAM log (5 records)	Number: Lowest is the most recent Date: mm/dd Time: mm/ss Error code: Last 4 digits
	01	Jam type	1: CR error 2: Jam 3: Feed failure (delay) 4: Cut failure *: Unknown
	02	Media format	1: Roll media 2: Cut sheet *: Unknown
	03	Jam timing	1: Feed 2: Print 3: Eject *: Unknown
	04	Width detection OFF mode	1: ON 2: OFF *: Unknown
	05	Head height	0: SL (1.0mm) 1: L (1.3mm) 2: M1 (1.8mm) 3: M2 (2.0mm) 4: M3 (2.2mm) 5: H (2.6mm) *: Unknown
	06		1: Fully close 2: Only HP side open 3: 1/4 open 4: 1/2 open 5: 3/4 open 6: Fully open *: Unknown
	07	Cut mode	1: User cut 2: Eject cut 3: Auto cut *: Unknown
	08	Media passing environment	0: A (Temperature: 15 - 25 degrees centigrade/Humidity: 40% - 60%) 1: B (Temperature: 25 - 30 degrees centigrade/Humidity: 40% - 60%) 2: C (Temperature: 15 - 30 degrees centigrade/Humidity: 10% - 40%) 3: D (Temperature: 15 - 30 degrees centigrade/Humidity: 60% - 80%) 4: E (Temperature: 15 - 30 degrees centigrade/Humidity: 0% - 10%, Temperature: to 15 degrees centigrade, from 30 degrees centigrade/Humidity: 0% - 50% [Low humidity side not guaranteed]) 5: F (Temperature: 15 degrees centigrade - 30 degrees centigrade/Humidity: 80% - 100%, Temperature: to 15 degrees centigrade, from 30 degrees centigrade / Humidity: 50% - 100% [High humidity side not guaranteed]) *: Unknown
	09	Borderless/Bordered	1: Bordered printing 2: Borderless printing *: Unknown
	10	Print mode label No.	Display print mode *: Unknown
	11	Media size	Display size *: Unknown
	12	Media type	Display media name *: Unknown
INK CHK	BK, MBK, MBK2, C, M, Y	Refill log Print whether disable remaining ink detection was previously set	0: Disable remaining ink detection was never set 1: Disable remaining ink detection was set at least once

Print item			Print content	Printed value
COUNTER	PRINTER	POWER ON	Cumulative power-on time	Unit: hours
		SLEEP ON	Cumulative sleep-on time	Unit: hours
		CUTTER	Number of cutting operations	Unit: times
		WIPE	Number of wiping operations	Unit: times
		W-INK	Remaining capacity of the maintenance cartridge	Unit: %
		PDL	Cumulative number of printed media according to PDL	GARO: xx sheets HP-GL/2: xx sheets
	CARRIAGE	PRINT	Cumulative printing time	Unit: hours
		DRIVE	Cumulative carriage moving time	Unit: hours
		CR-COUNT	Cumulative carriage scan count (count as 1 by moving back and forth)	Unit: times
		CR-DIST.	Cumulative carriage scan distance (count as 1 by moving 210mm)	Unit: times
		PRINT-COUNT	Cumulative print end count (count as 1 by capping)	Unit: times
	PURGE	CLN-A	Cumulative number of automatic cleaning operations	
		1	Cumulative number of automatic cleaning 1 (normal suction) operations	Unit: times
		2	Cumulative number of automatic cleaning 2 (ink level adjusting) operations	
		3	Cumulative number of automatic cleaning 3 (initial filling) operations	
		6	Cumulative number of automatic cleaning 6 (strong normal suction) operations	
		7	Cumulative number of automatic cleaning 7 (aging) operations	
		8	Cumulative number of automatic cleaning 8 (flashing) operations	
		10	Cumulative number of automatic cleaning 10 (ink filling after secondary transportation) operations	
		11	Cumulative number of automatic cleaning 11 (ink filling after head replacement) operations	
		15	Cumulative number of automatic cleaning 15 (dot count small suction) operations	
		16	Cumulative number of automatic cleaning 16 (sedimented ink agitation) operations	
		17	Cumulative number of automatic cleaning 17 (small suction) operations	
		TTL	Total number of automatic cleaning operations	
		CLN-M	Cumulative number of manual cleaning 1 operations	
		1	Cumulative number of manual cleaning 1 (normal suction) operations	Unit: times
		4	Cumulative number of manual cleaning 4 (ink draining from head after head replacement) operations	
		5	Cumulative number of manual cleaning 5 (ink draining from head and tube before transportation) operations	
		6	Cumulative number of manual cleaning 6 (normal strong suction) operations	
		TTL	Total number of manual cleaning operations	
	CLEAR	INK CONSUME	Cumulative count of ink section consumption amount clearing	Unit: times
		MTC EXC.	Cumulative count of maintenance cartridge replacement count clearing	
		HEAD EXC.	Cumulative count of printhead replacement count clearing	
		PARTS CR1 EXC.	Cumulative count of unit CR-1(carriage unit bushing) replacement count clearing	
		PARTS CR2 EXC.	Cumulative count of unit CR-2(fexible cable unit) replacement count clearing	
		PARTS CR3 EXC.	Cumulative count of unit CR-3(linear encoder sensor/linear scale/shaft cleaner) replacement count clearing	
		PARTS CR4 EXC.	Cumulative count of unit CR-4(carriage height changing cam) replacement count clearing	
		PARTS CR5 EXC.	Cumulative count of unit CR-5(multi sensor) replacement count clearing	
		PARTS SP1 EXC.	Cumulative count of unit SP-1(ink tube unit) replacement count clearing	
		PARTS PG1 EXC.	Cumulative count of unit PG-1(purge unit) replacement count clearing	
		PARTS HMa1 EXC.	Cumulative count of unit HMa-1(head management sensor) replacement count clearing	
		PARTS MT1 EXC.	Cumulative count of unit MT-1(carriage motor) replacement count clearing	
		PARTS PL1 EXC.	Cumulative count of unit PL-1(feed motor) replacement count clearing	
		PARTS Mi1 EXC.	Cumulative count of unit Mi-1(mist fan/mist exhaust duct) replacement count clearing	

Print item		Print content	Printed value
HEAD INF.1 [Installed head]	01	Date & time installed (last 4 times)	YY/MM/DD Display order: Installed date (last) -> Installed date (2nd to last) -> Installed date (3rd to last) -> Installed date (initial)
	02	Removal date & time (last 3 times)	YY/MM/DD Display order: Last -> 2nd to last -> 3rd to last
	03	Main unit serial No. (last 3 times)	Display order: Last -> 2nd to last -> 3rd to last
	04	CLN_A (auto) count	Unit: Times
	05	CLN_A (manual) count	
	06	Cleaning B (auto/left cap) count	
	07	Cleaning B (auto/right cap) count	
	08	CLN_B (manual) count	
	09	Head replacement ink drain count	
	10	Secondary transport ink drain count	
	11	Secondary transport ink fill count	
	12	Ink filling after head replacement count	
	13	Recovery suction	
	14	Number of sheets printed	Unit: Sheets (A4 equivalent sheets)
	15	Error log	YY/MM/DD xxxx (last 4 digits) 01: Last, 02: 2nd to last, 03: 3rd to last, ..., 20: 20th to last
	16	Refill tank usage log (per chip)	A: x, B: x, C: x, D: x, E: x, F: x
	17	Firmware version (last 3)	XX.XX YY/MM/DD Display order: Last -> 2nd to last -> 3rd to last
	18	Head highest temperature (per chip)	A: xxx, B: xxx, C: xxx, D: xxx, E: xxx, F: xxx
	19	Number of non-discharging nozzles (per nozzle row) chip A row A, chip A row B to chip F row A, chip F row B	AA: xxx, AB: xxx, BA: xxx, BB: xxx, CA: xxx, CB: xxx, DA: xxx, DB: xxx, EA: xxx, EB: xxx, FA: xxx, FB: xxx
	20	EEPROM format Ver	
HEAD INF.2 [Head installed 2nd to last]	01	Date & time installed (last 4 times)	YY/MM/DD Display order: Installed date (last) -> Installed date (2nd to last) -> Installed date (3rd to last) -> Installed date (initial)
	02	Removal date & time (last 3 times)	YY/MM/DD Display order: Last -> 2nd to last -> 3rd to last
	03	Main unit serial No. (last 3 times)	Display order: Last -> 2nd to last -> 3rd to last
	04	CLN_A (auto) count	Unit: Times
	05	CLN_A (manual) count	
	06	Cleaning B (auto/left cap) count	
	07	Cleaning B (auto/right cap) count	
	08	CLN_B (manual) count	
	09	Head replacement ink drain count	
	10	Secondary transport ink drain count	
	11	Secondary transport ink fill count	
	12	Ink filling after head replacement count	
	13	Recovery suction	
	14	Number of sheets printed	Unit: Sheets (A4 equivalent sheets)
	15	Error log	YY/MM/DD xxxx (last 4 digits) 01: Last, 02: 2nd to last, 03: 3rd to last, ..., 20: 20th to last
	16	Refill tank usage log (per chip)	A: x, B: x, C: x, D: x, E: x, F: x
	17	Firmware version (last 3)	XX.XX YY/MM/DD Display order: Last -> 2nd to last -> 3rd to last
	18	Head highest temperature (per chip)	A: xxx, B: xxx, C: xxx, D: xxx, E: xxx, F: xxx
	19	Number of non-discharging nozzles (per nozzle row) chip A row A, chip A row B to chip F row A, chip F row B	AA: xxx, AB: xxx, BA: xxx, BB: xxx, CA: xxx, CB: xxx, DA: xxx, DB: xxx, EA: xxx, EB: xxx, FA: xxx, FB: xxx
	20	EEPROM format Ver	
PARTS CNT.	[Value of each parts counter]	Status	OK/W1/W2/E
		Number of days after set	Unit: Days
		Count	
		Life threshold	
		Usage	Unit: %
		Cumulative count	

Print item		Print content	Printed value
COGFF	CONDITION	Cogging FF result	0: Disabled 1: Enabled 2: Check required 3: Adjust required
	PARAM0-F	Parameters 1	REF: Motor error (6 digits) PHASE: Phase (3 digits) AMP: Amplitude (3 digits) RATE: Decay rate (3 digits)
	PARAM0-B	Parameters 2	REF: Motor error (6 digits) PHASE: Phase (3 digits) AMP: Amplitude (3 digits) RATE: Decay rate (3 digits)
LF SCALE adjustment value (user value)	LF-A	LF8 pass	
	LF-B	LF1 pass	
	SCALE-A	Scale clean	
	SCALE-B	Scale fast	
PV AUTO JUDGE		Ink reduction mode	ON (NORMAL/LOW only when ON)/Number of times OFF is entered

b) Layout
PRINT INF layout is shown below.


1/5
Canon imagePROGRAF iPFxxx PRINT INF
Firm:xx.xx Boot:xx.xx MIT(DBF):x.xx MIT(DB):x.xx
S/N:xxxxxxxx Date:yyyy/mm/dd
SYSTEM
S/N:xxxxxxxx TYPE:12 -LF:1 TMP:xx RH:xx SIZE-LF:xxxxx.x -CR:xxxxx.x AFTER INST:xxxx x
HEAD IN K
S/N:xxxxxxxx LOT:xxxxxxxx C:xxxxxx M:xxxxxx Y:xxxxxx MBK:xxxxxx MBK2:xxxxxx BK:xxxxxx
WARNING
01:MM/DD HH:MM xxxxxxxx-xxxx xxxxxxxx 02:MM/DD HH:MM xxxxxxxx-xxxx xxxxxxx x
03:MM/DD HH:MM xxxxxxxx-xxxx xxxxxxxx 04:MM/DD HH:MM xxxxxxxx-xxxx xxxxxxxx
05:MM/DD HH:MM xxxxxxxx-xxxx xxxxxxxx 06:MM/DD HH:MM xxxxxxxx-xxxx xxxxxxxx
07:MM/DD HH:MM xxxxxxxx-xxxx xxxxxxxx 08:MM/DD HH:MM xxxxxxxx-xxxx xxxxxxxx
09:MM/DD HH:MM xxxxxxxx-xxxx xxxxxxxx 10:MM/DD HH:MM xxxxxxxx-xxxx xxxxxxxx
11:MM/DD HH:MM xxxxxxxx-xxxx xxxxxxxx 12:MM/DD HH:MM xxxxxxxx-xxxx xxxxxxxx
13:MM/DD HH:MM xxxxxxxx-xxxx xxxxxxxx 14:MM/DD HH:MM xxxxxxxx-xxxx xxxxxxxx
15:MM/DD HH:MM xxxxxxxx-xxxx xxxxxxxx 16:MM/DD HH:MM xxxxxxxx-xxxx xxxxxxxx
17:MM/DD HH:MM xxxxxxxx-xxxx xxxxxxxx 18:MM/DD HH:MM xxxxxxxx-xxxx xxxxxxxx
19:MM/DD HH:MM xxxxxxxx-xxxx xxxxxxxx 20:MM/DD HH:MM xxxxxxxx-xxxx xxxxxxxx
ERROR
01:MM/DD HH:MM xxxxxxxx-xxxx xxxxxxxx 02:MM/DD HH:MM xxxxxxxx-xxxx xxxxxxx x
03:MM/DD HH:MM xxxxxxxx-xxxx xxxxxxxx 04:MM/DD HH:MM xxxxxxxx-xxxx xxxxxxxx
05:MM/DD HH:MM xxxxxxxx-xxxx xxxxxxxx 06:MM/DD HH:MM xxxxxxxx-xxxx xxxxxxxx
07:MM/DD HH:MM xxxxxxxx-xxxx xxxxxxxx 08:MM/DD HH:MM xxxxxxxx-xxxx xxxxxxxx
09:MM/DD HH:MM xxxxxxxx-xxxx xxxxxxxx 10:MM/DD HH:MM xxxxxxxx-xxxx xxxxxxxx
11:MM/DD HH:MM xxxxxxxx-xxxx xxxxxxxx 12:MM/DD HH:MM xxxxxxxx-xxxx xxxxxxxx
13:MM/DD HH:MM xxxxxxxx-xxxx xxxxxxxx 14:MM/DD HH:MM xxxxxxxx-xxxx xxxxxxx x
15:MM/DD HH:MM xxxxxxxx-xxxx xxxxxxxx 16:MM/DD HH:MM xxxxxxxx-xxxx xxxxxxx x
17:MM/DD HH:MM xxxxxxxx-xxxx xxxxxxxx 18:MM/DD HH:MM xxxxxxxx-xxxx xxxxxxxx
19:MM/DD HH:MM xxxxxxxx-xxxx xxxxxxxx 20:MM/DD HH:MM xxxxxxxx-xxxx xxxxxxx x
JAM
01:MM/DD HH:MM xxxx xxxxxxxx
01:x 02:x 03:x 04:x 05:xx 06:x 07:x 08:x
09:x 10:xxx 11:media_sizexxxxxx 12:media_namexxxxxx
02:MM/DD HH:MM xxxx xxxxxxxx
01:x 02:x 03:x 04:x 05:xx 06:x 07:x 08:x
09:x 10:xxx 11:media_sizexxxxxx 12:media_namexxxxxx
03:MM/DD HH:MM xxxx xxxxxxxx
01:x 02:x 03:x 04:x 05:xx 06:x 07:x 08:x
09:x 10:xxx 11:media_sizexxxxxx 12:media_namexxxxxx
04:MM/DD HH:MM xxxx xxxxxxx x
01:x 02:x 03:x 04:x 05:xx 06:x 07:x 08:x
09:x 10:xxx 11:media_sizexxxxxx 12:media_namexxxxx
05:MM/DD HH:MM xxxx xxxxxxx x
01:x 02:x 03:x 04:x 05:xx 06:x 07:x 08:x
09:x 10:xxx 11:media_sizexxxxxx 12:media_namexxxxxx

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```
2/5
Canon imagePROGRAF iPFxxx  PRINT INF
  Firm:xx.xx  Boot:xx.xx  MIT(DBF):x.xx  MIT(DB):x.xx
  S/N:xxxxxxxx  Date:yyyy/mm/dd
INK CHECK
  C:x  M:x  Y:x  MBK:x  MBK2:x  BK:x
COUNTER
  PRINTER
    LIFE-TTL:xxxxxx  LIFE-ROLL:xxxxxx  LIFE-CUTSHEET:xxxxxx
    LIFE  A:xxxxxx  B:xxxxxx  C:xxxxxx  D:xxxxxx  E:xxxxxx  F:xxxxxx
    POWER-ON:xxxxxx  SLEEP-ON:xxxxxx  CUTTER:xxxxxx  WIPE:xxxxxx  W-INK:xxxxxx
    PDL: GARO:xxxxxx  HP-GL/2:xxxxxx
  CARRIAGE
    PRINT:xxxxxx  DRIVE:xxxxxx  CR-COUNT:xxxxxx  CR-DIST.:xxxxxx  PRINT-COUNT:xxxxxx
  PURGE
    CLN-A : 1:xxxxx 2:xxxxx 3:xx 6:xxxx 7:xxx 10:xxx 11:xxx 15:xxx 16:xxxxx 17:xxxxx TTL:xxxxxx
    CLN-M : 1:xxxxx 4:xxx 5:xx 6:xxxxx TTL:xxxxx
  CLEAR
    INK CONSUME:xxx  MTC EXC.:xxx  HEAD EXC.:xxx
    PARTS CR1 EXC.:xx PARTS CR2 EXC.:xx PARTS CR3 EXC.:xx PARTS CR4 EXC.:xx PARTS CR5 EXC.:xx
    PARTS SP1 EXC.:xx PARTS PG1 EXC.:xx PARTS HMa1 EXC.:xx PARTS MT1 EXC.:xx PARTS PL1 EXC.:xx
    PARTS Mi1 EXC.:xx PARTS CT1 EXC.:xx PARTS WF1 EXC.:xx PARTS WF2 EXC.:xx
    FACTORY CNT.:xx
  EXCHANGE
    MTC EXC.:xxx  HEAD EXC.:xxx  BOARD EXC.(M/B):xx
    PARTS CR1 EXC.:xx PARTS CR2 EXC.:xx PARTS CR3 EXC.:xx PARTS CR4 EXC.:xx PARTS CR5 EXC.:xx
    PARTS SP1 EXC.:xx PARTS PG1 EXC.:xx PARTS HMa1 EXC.:xx PARTS MT1 EXC.:xx PARTS PL1 EXC.:xx
    PARTS Mi1 EXC.:xx PARTS CT1 EXC.:xx PARTS WF1 EXC.:xx PARTS WF2 EXC.:xx
  DETAIL-CNT
    MOVE PRINTER:xxx  MEDIACONFIG-CNT:xxx
    N-INKCHK:  C:xxxx  M:xxxx  Y:xxxx  MBK:xxxx  MBK2:xxxx  BK:xxxx
  INK-USE1
    INK   C:xxxxx.xml  M:xxxxx.xml  Y:xxxxx.xml  MBK:xxxxx.xml  MBK2:xxxxx.xml  BK:xxxxx.xml
          TTL:xxxxxx.xml
    NINK  C:xxxxx.xml  M:xxxxx.xml  Y:xxxxx.xml  MBK:xxxxx.xml  MBK2:xxxxx.xml  BK:xxxxx.xml
          TTL:xxxxxx.xml
  INK-USE2
    INK   C:xxxxx.xml  M:xxxxx.xml  Y:xxxxx.xml  MBK:xxxxx.xml  MBK2:xxxxx.xml  BK:xxxxx.xml
          TTL:xxxxxx.xml
    NINK  C:xxxxx.xml  M:xxxxx.xml  Y:xxxxx.xml  MBK:xxxxx.xml  MBK2:xxxxx.xml  BK:xxxxx.xml
          TTL:xxxxxx.xml
  INK-EXC
    INK   C:xxxx  M:xxxx  Y:xxxx  MBK:xxxx  MBK2:xxxx  BK:xxxx
          TTL:xxxxx
    NINK  C:xxxx  M:xxxx  Y:xxxx  MBK:xxxx  MBK2:xxxx  BK:xxxx
          TTL:xxxxx
```

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```
3/5
Canon imagePROGRAF iPFxxx  PRINT INF
 Firm:xx.xx  Boot:xx.xx  MIT(DBF):x.xx  MIT(DB):x.xx
 S/N:xxxxxxxx  Date:yyyy/mm/dd

  NAME     : xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx   NAME     : xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
  TTL      : xxxxxxx.x m2  xxxxxxx.x sq.f       TTL      : xxxxxxx.x m2  xxxxxxx.x sq.f
  ROLL     : xxxxxxx.x m2  xxxxxxx.x sq.f       ROLL     : xxxxxxx.x m2  xxxxxxx.x sq.f
  CUTSHEET : xxxxxxx.x m2  xxxxxxx.x sq.f       CUTSHEET : xxxxxxx.x m2  xxxxxxx.x sq.f
MEDIA 3                                 MEDIA 4
  NAME     : xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx   NAME     : xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
  TTL      : xxxxxxx.x m2  xxxxxxx.x sq.f       TTL      : xxxxxxx.x m2  xxxxxxx.x sq.f
  ROLL     : xxxxxxx.x m2  xxxxxxx.x sq.f        ROLL    : xxxxxxx.x m2  xxxxxxx.x sq.f
  CUTSHEET : xxxxxxx.x m2  xxxxxxx.x sq.f       CUTSHEET : xxxxxxx.x m2  xxxxxxx.x sq.f
MEDIA 5                                 MEDIA 6
  NAME     : xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx   NAME     : xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
  TTL      : xxxxxxx.x m2  xxxxxxx.x sq.f       TTL      : xxxxxxx.x m2  xxxxxxx.x sq.f
  ROLL     : xxxxxxx.x m2  xxxxxxx.x sq.f       ROLL     : xxxxxxx.x m2  xxxxxxx.x sq.f
  CUTSHEET : xxxxxxx.x m2  xxxxxxx.x sq.f       CUTSHEET : xxxxxxx.x m2  xxxxxxx.x sq.f
MEDIA 7                                 MEDIA OTHER
  NAME     : xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx   NAME     : xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
  TTL      : xxxxxxx.x m2  xxxxxxx.x sq.f       TTL      : xxxxxxx.x m2  xxxxxxx.x sq.f
  ROLL     : xxxxxxx.x m2  xxxxxxx.x sq.f       ROLL     : xxxxxxx.x m2  xxxxxxx.x sq.f
  CUTSHEET : xxxxxxx.x m2  xxxxxxx.x sq.f       CUTSHEET : xxxxxxx.x m2  xxxxxxx.x sq.f

 MEDIA SIZE1 ROLL P-SQ/P-CNT
     36-44: xxxxxxx.x m2  xxxxxxx.x sq.f        0
     24-36: xxxxxxx.x m2  xxxxxxx.x sq.f        0
     17-24: xxxxxxx.x m2  xxxxxxx.x sq.f        0
      0-17: xxxxxxx.x m2  xxxxxxx.x sq.f        0
 MEDIA SIZE2 ROLL D-SQ/D-CNT
     36-44: xxxxxxx.x m2  xxxxxxx.x sq.f        0
     24-36: xxxxxxx.x m2  xxxxxxx.x sq.f        0
     17-24: xxxxxxx.x m2  xxxxxxx.x sq.f        0
      0-17: xxxxxxx.x m2  xxxxxxx.x sq.f        0
 MEDIA SIZE1 CUT P-SQ/P-CNT
     36-44: xxxxxxx.x m2  xxxxxxx.x sq.f        0
     24-36: xxxxxxx.x m2  xxxxxxx.x sq.f        0
     17-24: xxxxxxx.x m2  xxxxxxx.x sq.f        0
      0-17: xxxxxxx.x m2  xxxxxxx.x sq.f        0
 MEDIA SIZE2 CUT D-SQ/D-CNT
     36-44: xxxxxxx.x m2  xxxxxxx.x sq.f        0
     24-36: xxxxxxx.x m2  xxxxxxx.x sq.f        0
     17-24: xxxxxxx.x m2  xxxxxxx.x sq.f        0
      0-17: xxxxxxx.x m2  xxxxxxx.x sq.f        0
```

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```
4/5
Canon imagePROGRAF iPFxxx  PRINT INF
 Firm:xx.xx  Boot:xx.xx  MIT(DBF):x.xx  MIT(DB):x.xx
 S/N:xxxxxxxx  Date:yyyy/mm/dd

 HEAD DOT CNT.1
  C:xxxxxxxxx  M:xxxxxxxxx  Y:xxxxxxxxx  MBK:xxxxxxxxx  MBK2:xxxxxxxxx  BK:xxxxxxxxx
  TTL:xxxxxxxxxxxxxxx
 HEAD DOT CNT.2
  C:xxxxxxxxx  M:xxxxxxxxx  Y:xxxxxxxxx  MBK:xxxxxxxxx  MBK2:xxxxxxxxx  BK:xxxxxxxxx
  TTL:xxxxxxxxxxxxxxx

 HEAD INF.1
  1:YY/MM/DD YY/MM/DD YY/MM/DD YY/MM/DD  2:YY/MM/DD YY/MM/DD YY/MM/DD
  3:xxxxxxxx xxxxxxxx xxxxxxxx
  4:xxxxx  5:xxxxx  6:xxxxx  7:xxxxx  8:xxx  9:xxx  10:xxx  11:xxx  12:xxx
  13:xxxxxxxx  19:1
  14: 1:YY/MM/DD xxxxxxxx-xxxx  2:YY/MM/DD xxxxxxxx-xxxx  3:YY/MM/DD xxxxxxxx-xxxx
      4:YY/MM/DD xxxxxxxx-xxxx  5:YY/MM/DD xxxxxxxx-xxxx  6:YY/MM/DD xxxxxxxx-xxxx
      7:YY/MM/DD xxxxxxxx-xxxx  8:YY/MM/DD xxxxxxxx-xxxx  9:YY/MM/DD xxxxxxxx-xxxx
     10:YY/MM/DD xxxxxxxx-xxxx 11:YY/MM/DD xxxxxxxx-xxxx 12:YY/MM/DD xxxxxxxx-xxxx
     13:YY/MM/DD xxxxxxxx-xxxx 14:YY/MM/DD xxxxxxxx-xxxx 15:YY/MM/DD xxxxxxxx-xxxx
     16:YY/MM/DD xxxxxxxx-xxxx 17:YY/MM/DD xxxxxxxx-xxxx 18:YY/MM/DD xxxxxxxx-xxxx
     19:YY/MM/DD xxxxxxxx-xxxx 20:YY/MM/DD xxxxxxxx-xxxx
  15:A:x B:x C:x D:x E:x F:x
  16:XX.XX YY/MM/DD  XX.XX YY/MM/DD  XX.XX YY/MM/DD
  17:A:xxx B:xxx C:xxx D:xxx E:xxx F:xxx
  18:AA:xxx AB:xxx BA:xxx BB:xxx CA:xxx CB:xxx DA:xxx DB:xxx EA:xxx EB:xxx FA:xxx FB:xxx

 HEAD INF.2
  1:YY/MM/DD YY/MM/DD YY/MM/DD YY/MM/DD  2:YY/MM/DD YY/MM/DD YY/MM/DD
  3:xxxxxxxx xxxxxxxx xxxxxxxx
  4:xxxxx  5:xxxxx  6:xxxxx  7:xxxxx  8:xxx  9:xxx  10:xxx  11:xxx  12:xxx
  13:xxxxxxxx  19:1
  14: 1:YY/MM/DD xxxxxxxx-xxxx  2:YY/MM/DD xxxxxxxx-xxxx  3:YY/MM/DD xxxxxxxx-xxxx
      4:YY/MM/DD xxxxxxxx-xxxx  5:YY/MM/DD xxxxxxxx-xxxx  6:YY/MM/DD xxxxxxxx-xxxx
      7:YY/MM/DD xxxxxxxx-xxxx  8:YY/MM/DD xxxxxxxx-xxxx  9:YY/MM/DD xxxxxxxx-xxxx
     10:YY/MM/DD xxxxxxxx-xxxx 11:YY/MM/DD xxxxxxxx-xxxx 12:YY/MM/DD xxxxxxxx-xxxx
     13:YY/MM/DD xxxxxxxx-xxxx 14:YY/MM/DD xxxxxxxx-xxxx 15:YY/MM/DD xxxxxxxx-xxxx
     16:YY/MM/DD xxxxxxxx-xxxx 17:YY/MM/DD xxxxxxxx-xxxx 18:YY/MM/DD xxxxxxxx-xxxx
     19:YY/MM/DD xxxxxxxx-xxxx 20:YY/MM/DD xxxxxxxx-xxxx
  15:A:x B:x C:x D:x E:x F:x
  16:XX.XX YY/MM/DD  XX.XX YY/MM/DD  XX.XX YY/MM/DD
  17:A:xxx B:xxx C:xxx D:xxx E:xxx F:xxx
  18:AA:xxx AB:xxx BA:xxx BB:xxx CA:xxx CB:xxx DA:xxx DB:xxx EA:xxx EB:xxx FA:xxx FB:xxx
```

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```
5/5
Canon imagePROGRAF iPFxxx  PRINT INF
 Firm:xx.xx  Boot:xx.xx  MIT(DBF):x.xx  MIT(DB):x.xx
 S/N:xxxxxxxx  Date:yyyyy/mm/dd

PARTS CNT.
 PARTS CR1 : OK    0   0.0          0.0   0%          0.0
 PARTS CR2 : OK    0   0.0          0.0   0%          0.0
 PARTS CR3 : OK    0   0.0          0.0   0%          0.0
 PARTS CR4 : OK    0   0.0          0.0   0%          0.0
 PARTS CR5 : OK    0   0.0          0.0   0%          0.0
 PARTS SP1 : OK    0    0           0   0%           0
 PARTS PG1 : OK    0    0           0   0%           0
 PARTS HMa1 : OK    0    0           0   0%           0
 PARTS MT1 : OK    0    0           0   0%           0
 PARTS PL1 : OK    0    0           0   0%           0
 PARTS Mi1  : OK    0    0           0   0%           0
 PARTS CT1 : OK    0    0           0   0%           0
 PARTS WF1 : OK    0    0           0   0%           0
 PARTS WF2 : OK    0    0           0   0%           0

COGFF
 CONDITION : 0
 PARAM0-F : REF: xxxxxx  xxxxxx  xxxxxx  xxxxxx  PHASE: xxx  xxx  xxx  xxx
                AMP:     xxx      xxx      xxx      xxx   RATE: xxx  xxx  xxx  xxx
 PARAM0-B : REF: xxxxxx  xxxxxx  xxxxxx  xxxxxx  PHASE: xxx  xxx  xxx  xxx
                AMP:     xxx      xxx      xxx      xxx   RATE: xxx  xxx  xxx  xxx

 LF-A
  ROLL  LARGE : XXX.XXXX  MIDDLE : XXX.XXXX  SMALL : XXX.XXXX  SMALLER : XXX.XXXX
  CUT   LARGE : XXX.XXXX  MIDDLE : XXX.XXXX  SMALL : XXX.XXXX  SMALLER : XXX.XXXX
 LF-B
  ROLL  LARGE : XXX.XXXX  MIDDLE : XXX.XXXX  SMALL : XXX.XXXX  SMALLER : XXX.XXXX
  CUT   LARGE : XXX.XXXX  MIDDLE : XXX.XXXX  SMALL : XXX.XXXX  SMALLER : XXX.XXXX
 SCALE-A
  ROLL  LARGE : XXX  MIDDLE : XXX  SMALL : XXX  SMALLER : XXX
  CUT   LARGE : XXX  MIDDLE : XXX  SMALL : XXX  SMALLER : XXX
 SCALE-B
  ROLL  LARGE : XXX  MIDDLE : XXX  SMALL : XXX  SMALLER : XXX
  CUT   LARGE : XXX  MIDDLE : XXX  SMALL : XXX  SMALLER : XXX

  PV AUTO JUDGE : ON(NORMAL) , 0
```

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7.2 Special Mode

7.2.1 Special Modes for Servicing

iPF750 / iPF755

This printer supports the following special modes in addition to the service mode:
- PCB replacement mode
- Download mode

1. PCB replacement mode
This mode is used when replacing the main PCB or MC relay PCB.
By executing this mode,
- Backup data of the settings and counter values stored in the MC relay PCB are moved to the new main PCB.
- The data such as the settings and counter values are copied to the MC relay PCB.

a) Entering the PCB replacement mode
Follow the same procedure as that for entering the service mode.
(With the [Load] key and [Navigate] key pressed down, turn on the [Power] key.)
When the printer starts up, compare the serial number memorized in the main PCB's EEPROM with that memorized in the MC relay PCB's EEPROM. If they do not match, or no serial number is memorized in either EEPROM, enter the PCB replacement mode.

b) Procedure
Select "CPU BOARD" or "MC BOARD" using the ◄ and ► keys, and then press the [OK] key to determine it.
- CPU BOARD
Select this after replacing the main PCB.
The data in the MC relay PCB is copied to the main PCB.

- MC BOARD
Select this before replacing the main PCB.
The data in the main PCB is copied to the MC relay PCB.
Use this when the MC relay PCB is a new one.

c) Exiting the PCB replacement mode
Turning off the [Power] key of the printer allows you to exit the PCB replacement mode.

For details on how to replace the PCB, see "Disassembly/Reassembly > Points to Note on Disassembly and Reassembly > PCBs".

2. Download mode
Use this mode only when updating the firmware without performing initialization.

a) Entering the download mode
1) Turning off the [Power] key of the printer.
2) With the [Stop] and [Navigate] keys pressed down, turn on the [Power] key of the printer.
  * Keep pressing the above buttons until "Initializing" appears on the display.

b) Procedure
When "Download Mode/Send Firmware" is shown on the display, transfer the firmware.
When downloading of the firmware is completed, the printer is turned off automatically.

Chapter 8 ERROR CODE

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8.1 Outline

8.1.1 Outline

iPF750 / iPF755

The printer indicates errors using the display and LEDs.
If an error occurs during printing, the printer status is also displayed on the status monitor of the printer driver.
The following three types of errors are displayed on the display:

- Warning
Status where the print operation can be continued without remedying the cause of the problem. This can, however, adversely affect the printing results.

- Error
Status where the print operation is stopped, and the regular operation cannot be recovered until the cause of the problem is remedied.

- Service call error
When a service call error occurs, the error is not cleared and the error indication remains on the operation panel even if the printer is powered off and on again. (Occurrence of the service call error is indicated again at power-on.)
This measure is taken to prevent user's recovery of the service call error and damages to the printer.
Service call errors can be cleared, however, by starting up the printer in the service mode.

For how to take actions against warnings and errors, refer to "Troubleshooting".

Overview of warnings and error codes

The codes of warnings and errors are shown below acording to the system.

T-8-1

Code	Diagnosis
0181xxxx-xxxx	Ink warning
0180xxxx-xxxx	Printhead warning
0184xxxx-xxxx	Maintenance cartridge warning
0134xxxx-xxxx	GARO warning
0303xxxx-xxxx	Cover error
0301xxxx-xxxx 0306xxxx-xxxx 0386xxxx-xxxx	Media error
0313xxxx-xxxx	Sensors, fans, motors error
0380xxxx-xxxx	Printhead error
0381xxxx-xxxx 0383xxxx-xxxx	Ink error
0384xxxx-xxxx	Maintenance cartridge error
0387xxxx-xxxx	Cutter unit error
0389xxxx-xxxx	Media take-up unit error
0390xxxx-xxxx	Firmware error
Exxx-xxxx	Service call error

* "x" stands for a numeric or letter.

8.2 Warning Table

8.2.1 Warnings

iPF750 / iPF755

* Codes represent the numbers that are displayed in DISPLAY in service mode and that are recorded in PRINTINF. Messages that are not accompanied by a code indication are not logged.

T-8-2

Display massage	Code*	Condition detected	Action
Ink Level: Check	0180104-1000	BK ink tank near-empty	Renew the ink tanks.
Ink Level: Check	0180101-1001	Y ink tank near-empty	
Ink Level: Check	0180102-1002	M ink tank near-empty	
Ink Level: Check	0180103-1003	C ink tank near-empty	
Ink Level: Check	0180106-1006	MBK ink tank near-empty	
Ink Level: Check	0180106-1007	MBK2 ink tank near-empty	
Problem with Printhead. Chk printing results	01800500-1010	Number of non-discharging nozzles in printhead: Warning level	Clean the printheads. Renew the printheads. Identify the head management sensor unit.
Prepare for maint cart replacement.	01841001-281A	Maintenance cartridge near-full	Replace the maintenance cartridge.
Prepare for parts replacement. Call for service.		Parts counter W1 level	Check the parts counter in service mode.
Parts replacement time has passed. Call for service.		Parts counter W2 level	After checking the parts counter in service mode, replace any part whose counter is nearing the error value.
GARO W1221	01341221-1030	GARO (image mode): Unknown command	Verify the transmitted data before reprinting.
GARO W1222	01341222-1031	GARO (image mode): Invalid parameter count (no parameters)	
GARO W1223	01341223-1032	GARO (image mode): Required parameter missing	
GARO W1225	01341225-1034	GARO (image mode): Other warning	
GARO W1226	01341226-103A	GARO (image mode): Image processing table error	
GARO W1231	01341231-1035	GARO (setup): Unknown command	
GARO W1232	01341232-1036	GARO (setup): Invalid parameter count	
GARO W1233	01341233-1037	GARO (setup): Required parameter missing	
GARO W1234	01341234-1038	GARO (setup): Data out of bounds	
GARO W1235	01341235-1039	GARO (setup): Other warning	
End of paper feed. Cannot feed paper more.		Forced feed limit	Check the remaining quantity of roll media.
This type of paper is not compatible with HP-GL/2.	01860006-1015	Non-support paper of HP-GL/2	Exchange for the compatible paper to HP-GL/2.
GL2:W0501 The memory is full.	01340501-1040	Memory full (HP-GL/2)	Check if there is the non-image area of the print. Verify the transmitted data before reprinting.
GL2:W0904 The memory is full.	01340904-1048	Overflow of Polygon buffer (HP-GL/2)	
GL2:W0903 The memory is full.	01340903-1047	Overflow of replot buffer (HP-GL/2)	
GL2:W0502 The parameter is out of range.	01340502-1041	Invalid parameter (HP-GL/2)	Verify the transmitted data before reprinting.
GL2:W0504 This command is not supported.	01340504-1043	Invalid command (HP-GL/2)	
Mail box nearly full. Delete unwanted data	011A1001-2901	The free hard disk space left for Personal Boxes in the printer's hard disk does not have more than 1 GB, combined.	Delete unneeded jobs stored in Personal Boxes.
Mail box full. Now printing without saving data.	01861003-2902	100 jobs are stored in the Personal Box.	Delete unneeded jobs stored in Personal Boxs.
Not much ink is left. Prepare to replace the ink.	01810103-1003	C ink tank near-empty	Renew the C ink tank.
Not much ink is left. Prepare to replace the ink.	01810102-1002	M ink tank near-empty	Renew the M ink tank.
Not much ink is left. Prepare to replace the ink.	01810101-1001	Y ink tank near-empty	Renew the Y ink tank.
Not much ink is left. Prepare to replace the ink.	01810106-1006	MBK ink tank near-empty	Renew the MBK ink tank.
Not much ink is left. Prepare to replace the ink.	01810104-1000	BK ink tank near-empty	Renew the BK ink tank.
Ink tank is empty. Replace the ink tank.	01810303-1403	C ink tank empty	Renew the C ink tank.
Ink tank is empty. Replace the ink tank.	01810302-1402	M ink tank empty	Renew the M ink tank.

Display massage	Code*	Condition detected	Action
Ink tank is empty. Replace the ink tank.	01810301-1401	Y ink tank empty	Renew the Y ink tank.
Ink tank is empty. Replace the ink tank.	01810306-1406	MBK ink tank empty	Renew the MBK ink tank.
Ink tank is empty. Replace the ink tank.	01810304-1400	BK ink tank empty	Renew the BK ink tank.
No ink tank loaded. Check ink tank.	01810103-1413	C ink tank removal	Attach the C ink tank.
No ink tank loaded. Check ink tank.	01810102-1412	M ink tank removal	Attach the M ink tank.
No ink tank loaded. Check ink tank.	01810101-1411	Y ink tank removal	Attach the Y ink tank.
No ink tank loaded. Check ink tank.	01810106-1416	MBK ink tank removal	Attach the MBK ink tank.
No ink tank loaded. Check ink tank.	01810104-1410	BK ink tank removal	Attach the BK ink tank.
The paper is too small.	013200D2-1051	Size clip error	Check the media size check. Change the media size.
Maximum jobs stored. Delete unwanted data.	011A1006-2907	Saved jobs exceed the Personal Box capacity.	Press the stop button to cancel the print job. Delete print jobs from the queue. Delete unneeded jobs stored on the hard disk.

8.3 Error Table

8.3.1 Errors

iPF750 / iPF755

* Codes represent the numbers that are displayed in DISPLAY in service mode.
If the same message is displayed when the printer is turned off, then back on, take action as recommended in the Action column.

T-8-3

Display massage	Code*	Condition detected	Action
PHead needs cleaning. Press Online to clear error.	03800500-280C	Printhead found to have many non-discharging nozzles during a non-discharging inspection (printing paused)	Clean the printhead. Identify the nozzles in a nozzle check pattern. Replace the printhead.
Paper size not detected. Lift the release lever and reload the paper.	03010000-200C	Unable to detect the leading end of paper	Check the leading end of paper. Reload the paper.
Leading edge detection error. Lift the release lever and align leading edge with orange line.	03010000-200D	Unable to detect the trailing end of cut sheet	Check the sheet length. Check to see if paper has not jammed.
Paper size not detected. Lift the release lever and reload the paper.	03010000-2017	Paper (right) edge detection error	Check the right edge of paper. Check the paper type.
Paper size not detected. Lift the release lever and reload the paper.	03010000-2018	Paper (left) edge detection error	Check the left edge of paper. Check the paper type.
Cannot adjust printhead. Press Online to clear the error and readjust printhead.	03863000-2820	Printhead registration unadjustable	Check the paper on which a pattern is printed for smears. Check the environment for interferences from outside light. Clean the printhead.
Cannot adjust printhead. Press Online to clear the error and readjust printhead.	03863000-2821	LF unadjustable	Check the paper on which a pattern is printed for smears. Check the environment for interferences from outside light. Clean the printhead.
Cannot print as specified. Lift the release lever and replace paper with A4/ LTR (vertical) or larger.	03010000-2E1F	Undersized paper loaded for internal printing (A4 or larger)	Replace with A4/Letter or any larger-sized paper.
Cannot print as specified. Lift the release lever and replace paper with A3/ Ledger (vertical) or larger.	03010000-2E1F	Undersized paper loaded for internal printing (A3 or larger)	Replace with A3/11"x17" or any larger-sized paper.
Cannot print as specified. Lift the release lever and replace roll with 10 in. wide or larger roll.	03010000-2E1F	Undersized paper loaded for internal printing (roll media)	Replace with roll media at least 10 inches in width.
Cannot detect papr Remove paper and press Load/Eject.	03010000-2E25	Paper jam while feeding/ejecting/printing	Remove the paper jam and reload the paper.
Cannot feed paper Lift the release lever and reload paper.	03010000-2E27	Paper jam during feeding/printing/ejection	Reload the paper.
This paper cannot be used. Check supported paper sizes.	03010000-200E	Undersized paper (cut sheets/roll media)	Replace with larger-sized paper.
This paper cannot be used. Check supported paper sizes.	03010000-200F	Oversized paper (cut sheets/roll media)	Replace with smaller-sized paper.
Use another paper. Press Online to clear the error.	03010000-2F33	Unadjustable because of transparent media	Replace with adjustable media.
Paper loaded askew. Lift the release lever.	03016000-2010	Skew	Correct the skew in the paper and reload it.
Paper size not detected. Reload paper.	03010000-200A	Unable to detect the paper width (Paper loaded at an improper position)	Reload the paper
Paper jam. Press Load/Eject and reload the paper.	03010000-2E27	Paper jam during feeding/printing/ejection	Reload the paper

Display massage	Code*	Condition detected	Action
Paper size not detected. Lift the release lever and reload the paper.	03010000-200C	Roll media loading size detection failure	Reload the roll media.
Cannot adjust eccentric. Press Online to clear the error.	03863000-2822	Eccentricity correction disabled	Check to see if paper has not jammed.
Sheet printing is selected. Press Load/Eject and load sheets.	03860002-2E02	Data with a cut sheet specification has been received but no cut sheets are loaded.	Load cut sheets at the paper tray port.
Roll printing is selected, but sheets are loaded. Press OK, remove the sheets, and load a roll.	03860002-2E0A	Data with a roll media specification has been received when a cut sheet tray is loaded.	Replace with roll media.
Roll printing is selected. Press Load/Eject and load a roll.	03060A00-2E00	Data with a roll media specification has been received but no roll media are loaded.	Load roll media.
No Roll Feed Unit. Turn printer off and install roll feed unit.	03060A00-2E0E	Roll media unit not installed	Install the roll media unit.
The roll is empty. Lift the release lever and replace the roll.	03060A00-2E1B	Roll media end	Renew the supply of roll media.
Wrong paper feed slot for this paper type. Press Load/Eject and reload the paper.	03061000-2E15	Paper type mismatch	Check the type of paper that can be fed and reload the paper.
Manual printing is selected, but a roll is loaded. Press Load/Eject and remove the roll.	03860001-2E0C	Data with a cut sheet specification has been received when roll media are loaded.	Load cut sheets at the paper tray port.
Hardware error. 03130031-2E23 Turn off printer, wait, then turn on again.	03130031-2E23	Cutter unit failure	Check the cutter unit.
Hardware error. 03130031-2E14 Turn off printer, wait, then turn on again.	03130031-2F14	Writing to the ASIC register disabled	Replace the main controller PCB
Hardware error. 03130031-2E16 Turn off printer, wait, then turn on again.	03130031-2F16	Mist fan error	Check the mist fan.
Hardware error. 03130031-2E17 Turn off printer, wait, then turn on again.	03130031-2F17	Suction fan lock detection error	Check the suction fan.
Hardware error. 03130031-2E20 Turn off printer, wait, then turn on again.	03130031-2F20	Purge motor cam position error	Check the purge unit.
Hardware error. 03130031-2E22 Turn off printer, wait, then turn on again.	03130031-2F22	Pump travel timeout	Check the purge unit.
Hardware error. 03130031-2E23 Turn off printer, wait, then turn on again.	03130031-2F23	Purge motor error Pump inoperable	Check the purge unit.
Hardware error. 03130031-2E25 Turn off printer, wait, then turn on again.	03130031-2F25	Unable to detect the carriage motor home position	Check the carriage unit. Check the linear encoder for smears.
Hardware error. 03130031-2E26 Turn off printer, wait, then turn on again.	03130031-2F26	Carriage inoperable	Check the carriage unit and surrounding parts.

Display massage	Code*	Condition detected	Action
Hardware error. 03130031-2E27 Turn off printer, wait, then turn on again.	03130031-2F27	Carriage travel timeout	Check the carriage unit and surrounding parts.
Hardware error. 03130031-2E1F Turn off printer, wait, then turn on again.	03130031-2F1F	Pump cam sensor error	Check the purge unit.
Hardware error. 03130031-2E2A Turn off printer, wait, then turn on again.	03130031-2F2A	Unable to detect the feed roller home position	Check the feed roller encoder and surrounding part. Check to see if paper has not jammed.
Hardware error. 03130031-2E29 Turn off printer, wait, then turn on again.	03010000-2F29	Feed motor timeout (Roll media)	Check the roll feed unit. Check roll media. Check to see if paper has not jammed in the printer.
Hardware error. 03130031-2E2E Turn off printer, wait, then turn on again.	03130031-2F2E	Roll travel timeout	Check the roll feed unit.
Hardware error. 03130031-4027 Turn off printer, wait, then turn on again.	03130031-4027	Lift travel timeout error	Check the carriage unit and surrounding parts.
Hardware error. 03130031-2E13 Turn off printer, wait, then turn on again.	03130031-2F13	A/D converter external trigger output stop detection hardware error 1	Replace the new printhead.
Hardware error. 03130031-2F32 Turn off printer, wait, then turn on again.	03130031-2F32	Multi sensor error	Check the environment for interferences from outside light. Replace the multi sensor unit.
Hardware error. 03130031-2F3A Turn off printer, wait, then turn on again.	03130031-2F3A	Valve motor error	Check the ink supply unit.
Hardware error. 03130031-2F3B Turn off printer, wait, then turn on again.	03130031-2F3B	CS communication error	Remove the ink tanks and then reload them. Check the main controller PCB.
Hardware error. 03130031-260E Turn off printer, wait, then turn on again.	03130031-260E	Gap detection error	Check the carriage unit and surrounding parts. Replace the main controller PCB.
Hardware error. 03130031-2618 Turn off printer, wait, then turn on again.	03130031-2618	VH voltage error	Check the power supply unit.
Hardware error. 03130031-260F Turn off printer, wait, then turn on again.	03130031-260F	Gap reference surface error	Replace the reference surface sheet.
Roll feed unit err Turn off printer and check roll feed unit	03060B00-2E24	Roll feed unit failure	Replace the roll feed unit.
Unknown file. Check file format. Turn off printer, wait a while, then turn it on again.	03900001-4049	ROM data for another model has been transferred.	Transmit valid ROM data.
Unknown file. Check file format. Turn off printer, wait a while, then turn it on again.	03900001-4042	MIT data transfer failure	Verify the validity of MID data before transferring it.

Display massage	Code*	Condition detected	Action
Hardware error. 03130031-2F2B Turn off printer, wait, then turn on again.	03130031-2F2B	LF operation failure	Check to see if paper has not jammed. Check the feed motor and feed roller.
Printhead error Open top cover and replace the printhead.	03800200-2802	Invalid printhead installed	Replace printhead
Printhead error Open top cover and replace the right printhead.	03800300-2801	Printhead DI compensation failure	Replace printhead
Printhead error Open top cover and replace the right printhead.	03800400-2803	Printhead EEPROM error	Replace printhead
Hardware error. 03800500-2F2F Turn off printer, wait, then turn on again.	03800500-2F2F	Non-discharging error	Identify the head management sensor unit Replace the head management sensor unit Replace the printhead
Hardware error. 03800500-2F30 Turn off printer, wait, then turn on again.	03800500-2F30	Non-discharging position adjustment error	Identify the head management sensor unit Replace the head management sensor unit Replace the printhead
Ink tank is empty. Press OK and replace ink tank.	03810104-2500	Bk ink tank empty	Renew the Bk ink tank
Ink tank is empty. Press OK and replace ink tank.	03810101-2501	Y ink tank empty	Renew the Y ink tank
Ink tank is empty. Press OK and replace ink tank.	03810102-2502	M ink tank empty	Renew the M ink tank
Ink tank is empty. Press OK and replace ink tank.	03810103-2503	C ink tank empty	Renew the C ink tank
Ink tank is empty. Press OK and replace ink tank.	03810106-2506	MBk ink tank empty	Renew the MBk ink tank
Ink tank is empty. Press OK and replace ink tank.	03810106-2507	MBk2 ink tank empty	Renew the MBk ink tank
Ink insufficient. Press OK and replace ink tank.	03810204-2580	Low on the Bk ink tank (as during cleaning)	Replace with a fully replenished Bk ink tank
Ink insufficient. Press OK and replace ink tank.	03810201-2581	Low on the Y ink tank (as during cleaning)	Replace with a fully replenished Y ink tank
Ink insufficient. Press OK and replace ink tank.	03810202-2582	Low on the M ink tank (as during cleaning)	Replace with a fully replenished M ink tank
Ink insufficient. Press OK and replace ink tank.	03810203-2583	Low on the C ink tank (as during cleaning)	Replace with a fully replenished C ink tank
Ink insufficient. Press OK and replace ink tank.	03810206-2586	Low on the MBk ink tank (as during cleaning)	Replace with a fully replenished MBk ink tank
Ink insufficient. Press OK and replace ink tank.	03810204-2590	Low on the Bk ink tank (during pre-printing checks)	Replace with a fully replenished Bk ink tank
Ink insufficient. Press OK and replace ink tank.	03810201-2591	Low on the Y ink tank (during pre-printing checks)	Replace with a fully replenished Y ink tank
Ink insufficient. Press OK and replace ink tank.	03810202-2592	Low on the M ink tank (during pre-printing checks)	Replace with a fully replenished M ink tank
Ink insufficient. Press OK and replace ink tank.	03810203-2593	Low on the C ink tank (during pre-printing checks)	Replace with a fully replenished C ink tank
Ink insufficient. Press OK and replace ink tank.	03810206-2596	Low on the MBk ink tank (during pre-printing checks)	Replace with a fully replenished MBk ink tank
Ink tank error. Press OK and replace ink tank.	03830204-2540	Bk ink tank ID error	Replace with a valid Bk ink tank

Display massage	Code*	Condition detected	Action
Ink tank error. Press OK and replace ink tank.	03830201-2541	Y ink tank ID error	Replace with a valid Y ink tank
Ink tank error. Press OK and replace ink tank.	03830202-2542	M ink tank ID error	Replace with a valid M ink tank
Ink tank error. Press OK and replace ink tank.	03830203-2543	C ink tank ID error	Replace with a valid C ink tank
Ink tank error. Press OK and replace ink tank.	03830206-2546	MBk ink tank ID error	Replace with a valid MBk ink tank
Ink tank error. Press OK and replace ink tank.	03830206-2547	MBk2 ink tank ID error	Replace with a valid MBk ink tank
No ink tank loaded. Press OK and check ink tank.	03830104-2520	BK ink tank not installed	Install a Bk ink tank
No ink tank loaded. Press OK and check ink tank.	03830101-2521	Y ink tank not installed	Install a Y ink tank
No ink tank loaded. Press OK and check ink tank.	03830102-2522	M ink tank not installed	Install a M ink tank
No ink tank loaded. Press OK and check ink tank.	03830103-2523	C ink tank not installed	Install a C ink tank
No ink tank loaded. Press OK and check ink tank.	03830106-2526	MBK ink tank not installed	Install a MBk ink tank
No ink tank loaded. Press OK and check ink tank.	03830106-2527	MBK2 ink tank not installed	Install a MBk ink tank
Top cover is open. Turn off printer, wait a while, and turn it on again.	03031000-2F38	Top cover abnormally open	Close the top cover and turn on the printer again.
Ink tank cover is open. Turn off printer,wait a while, and turn it on again.	03031000-2E10	Ink tank cover abnormally open	Close the ink tank cover and turn on the printer again.
Maintenance cartridge full. Replace the maintenance cartridge.	03841001-2819	Maintenance cartridge full	Renew the maintenance cartridge.
No Maintenance Cartridge capacity. Replace the maintenance cartridge.	03841001-281B	Not enough space in the maintenance cartridge prior to cleaning	Replace the maintenance cartridge.
Maintenance cartridge problem. Replace the maintenance cartridge.	03841201-2816	Maintenance cartridge EEPROM error	Renew the maintenance cartridge.
Maintenance cartridge problem. Replace the maintenance cartridge.	03841201-2817	Maintenance cartridge ID error	Renew the maintenance cartridge.
Borderless printng not possible. Check roll position. Online: Print Load/Eject: Change Paper	03861001-2405	Paper loaded at a position inaccessible for borderless printing	Check to see if a borderless printing spacer is installed. Reload the paper.
Borderless printng not possible. Check paper size setting. Online: Print Load/Eject: Change Paper	03861001-2406	Data unfit for borderless printing	Check the paper size. Change the paper size.

Display massage	Code*	Condition detected	Action
Insufficient paper for job Online: Print Stop: Stop Printing Load/Eject: Change Paper	03862000-2E09	Not enough roll media on remaining roll media quantity detection	Renew the supply of roll media.
Cannot cut paper. Lift the release lever and reload the paper.	03870001-2015	Cutting failure	Cut paper manually. Check the cutter.
Cannot adjust optic axis. Press Online to clear the error.	03863000-2824	Optical axis error	Check the multi sensor. Check the head management sensor.
This type of paper is not compatible with HP-GL/2. Online: Print Stop: Stop Printing Load/Eject: Change Paper	03061000-2E15	Non-support media of HP-GL/2	Exchange for the compatible paper to HP-GL/2 before reprinting.
Mail box full. Delete unwanted data on your computer to resume printing. Press Stop to cancel printing.	031A1001-2905	The job store executed when the free hard disk space left for Personal Boxes in the printer's hard disk is full.	Delete unneeded jobs stored in Personal Boxes.
Mail box full. Cannot save. Delete unwanted data on your computer to resume printing. Press Stop to cancel printing.	031A1006-2906	The store executed when 32 jobs are stored in the Personal Box.	Delete unneeded jobs stored in Personal Boxes.
Hard disk error. Press OK to reformat	031A1002-2908	Hard disk format error	Press the [OK] button to start reformatting the hard disk. When formatting is finished, the printer automatically restarts.
File read error. Turn off printer, wait a while, and turn it on again. Invalid files will be deleted.	031A1002-2909	Hard disk file error	Restart the printer. Only the corrupted files will be deleted, and the printer will restart.
Hardware error. 03800500-2F31 Turn off printer, wait, then turn on again.	03800500-2F31	Non-discharge detection optical axis error	Check the head management sensor. Replace the head management sensor. Replace the printhead.
Hardware error. 03130031-2F3C Turn off printer, wait, then turn on again.	03130031-2F3C	LF pressure error	Check the pinch roller and surrounding part. Replace the pinch roller pressure drive unit.
No printhead Install printhead.	03800100-2800	Printhead not installed	Install the printhead.
Wrong printhead. Open top cover and replace the printhead.	03800200-2811	Printhead version error	Replace the printhead.
No maintenance cartridge. Check the maintenance cartridge.	03841101-2818	Mauntenance cartridge not installed	Install the maintenance cartridge.
This type of media is not compatible with HP-GL/2.	03860006-2825	Paper type mismatch at HP-GL/2 printing	Exchange for the compatible paper to HP-GL/2 before reprinting.
Cannot cut paper. Lift the release lever and reload the paper.	03870001-2019	Cut failure (during jam occure)	Check the cutter unit and surrounding part. Replace the cutter.
Insufficient paper for job	03862001-2E31	Not enough roll media	Renew the supply of roll media.
Paper jam. Manually rewind roll all the way and press OK.	03010000-2E3A	Madia load failure	Check the pick-up unit and roll media. Check to see if paper has not jammed.
Sheet printing is selected. Press Load/Eject and load sheets.	03060100-2E02	Cut sheet in not set	Load cut sheets at the paper tray port.
Borderless printng not possible. Check supported paper.	03861001-2408	Borderless printing disabled (unsupported size)	Check the media size. Change the media size.
Borderless printng not possible. Paper stretched or shrank. Confirm usage cond. of the paper.	03861001-2407	Borderless printing disabled (engine detection)	Reload the paper.

Display massage	Code*	Condition detected	Action
Roll printing is selected. Press Load/Eject and load a roll.	03060A00-2E35	Roll media is not loaded for internal printing.	Reload the roll media.

8.4 Sevice Call Table

8.4.1 Service Call Errors

iPF750 / iPF755

*Codes correspond to the numbers shown on the DISPLAY in the service mode.

T-8-4

Code	Description	Action
E141-4046	Number of recovery rotations reaching 50,000 or more	Replace the purge kit, and then clear the parts counter in the service mode.
E146-4001	Borderless/flow idle ejection/mist recovery count error	Replace the waste ink tank unit or mist fan or waste ink absorber or multi sensor reference, and then clear the parts counter in the service mode.
E161-403E	Abnormal temperature rise in printhead	Replace the printhead.
E194-404A	Non-discharging nozzle count error	Replace the head management sensor unit, and then clear the parts counter in the service mode.
E196-4040	Checksum error	Replace the main controller PCB.
E196-4041	Flash memory erase error	Replace the main controller PCB.
E196-4042	Flash memory write error	Replace the main controller PCB.
E196-4045	EEPROM write error	Replace the main controller PCB.
E196-404C	Serial number mismatch between boards	Execute PCB replacement mode or replace the main controller PCB.
E196-404D	Machine ID mismatch between boards	Replace the main controller PCB.
E196-404E	EEPROM read error	Replace the main controller PCB.
E198-401C	RTC error	Replace the lithium battery or replace the main controller PCB.
E198-401D	RTC low battery error	Replace the lithium battery or replace the main controller PCB.
E198-401E	RTC clock stop	Replace the lithium battery or replace the main controller PCB.
E199-404B	Temperature/humidity sensor board connector out of position	Check the temperature/humidity sensor board connector or replace the board.
E602-401A	HDD failure	Replace the HDD unit.
E602-401B	HDD connection error	Check the HDD connector/Replace the HDD unit.
E144-4047	Number of carrriage scan operation is full	Replace the tube unit, and then clear the parts counter in the service mode.
E144-4048	Printhead ink filling failure	Replace the printhead.
E196-4043	Memory error	Execute firmware update or replace the main controller PCB.
E196-4044	Firmware size error	Execute firmware update or replace the main controller PCB.

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